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Preparedness and
Survival Guide -- Page 3

Moving to the Country -- See page 2

Nov/Dec 2001

No. 72

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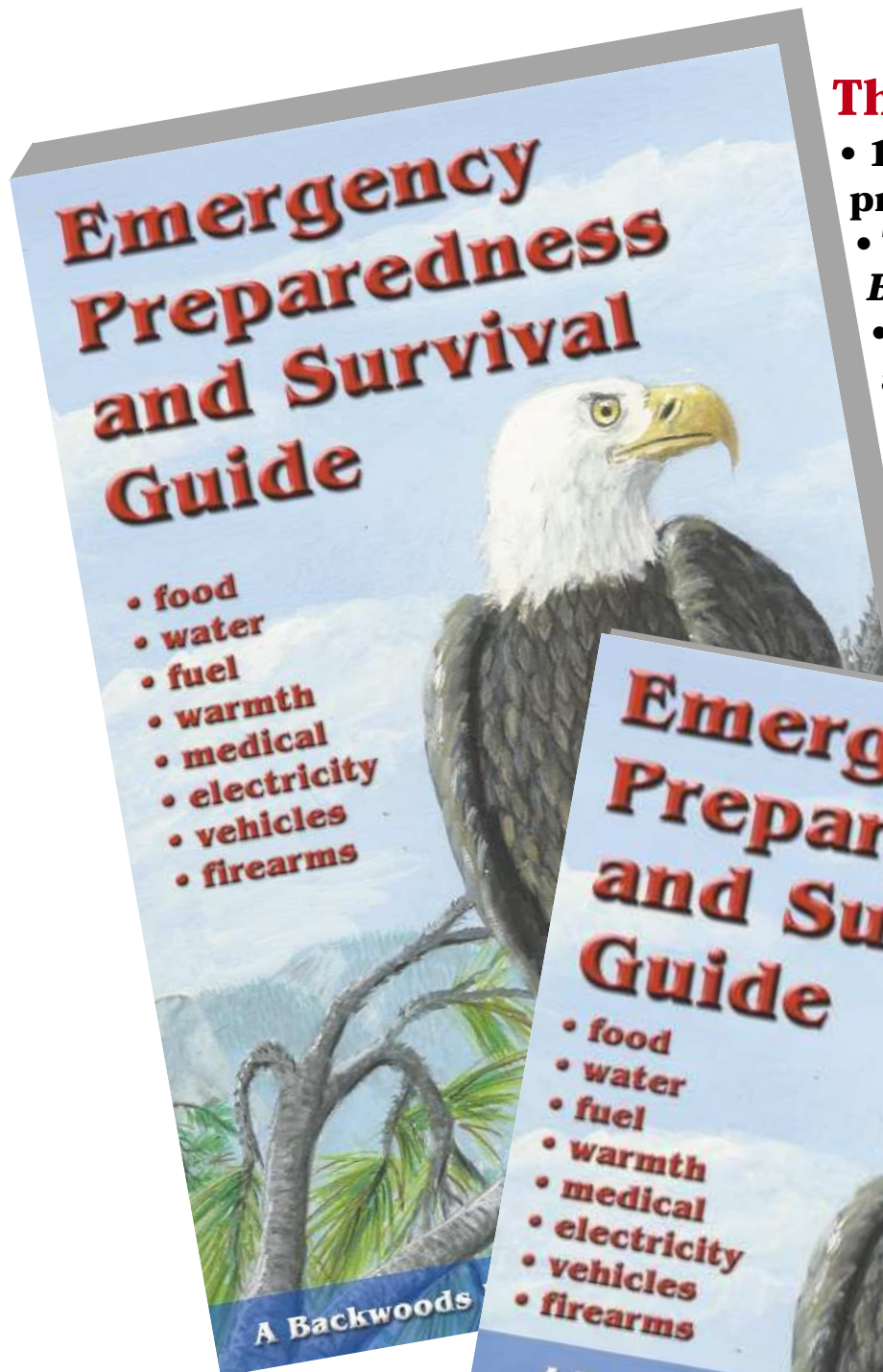
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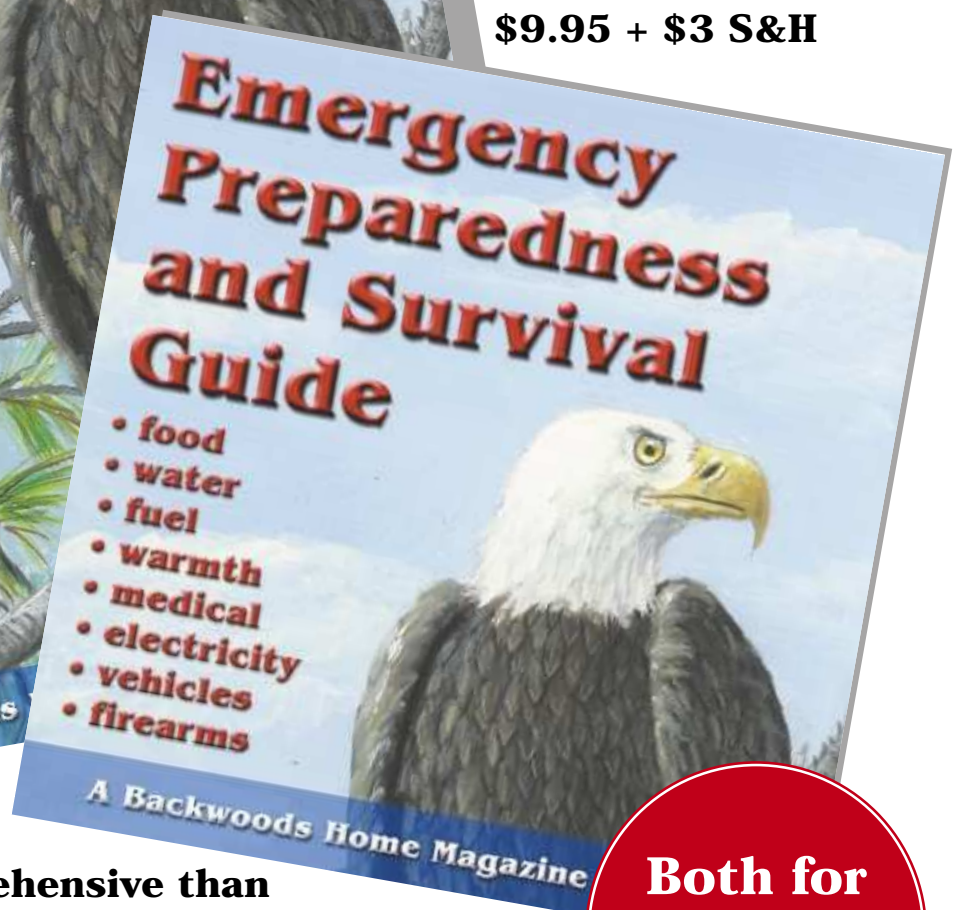
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To order see page 89.

Backwoods Home Magazine is written for people who have a desire to pursue personal independence, self sufficiency, and their dreams. It offers "how to" articles on owner-built housing, independent energy, gardening, health, self-employment, country living, and other topics related to an independent and self-reliant lifestyle.

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ABOUT THE COVER

This issue's cover is a photo by Pat Ward of the house built by BHM Publisher Dave Duffy in the Oregon woods. The house essentially launched *Backwoods Home Magazine*, as Duffy realized that anyone could do what he had done. Like one of the major articles in this issue, *Build a \$10,000 home*, Duffy's house also cost him \$10,000 to build. The house has since been enlarged and sold, but the lesson lives on—anyone can build their own affordable home.



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Independent energy

24 A solar primer: How it works, how it's made, what it costs By Jeffrey R. Yago

This is an easy-to-understand article that discusses the different types of solar energy components, how they work, and what they cost. Jeff Yago has provided an excellent beginner's primer.



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Self-sufficiency

16 Knowing survival fire craft can save your life By Robert N. Anderson

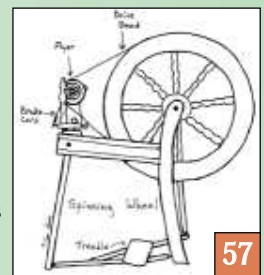
Anderson talks about the fire-making tools that may one day save your life.

32 Living the outlaw life By Claire Wolfe

Claire Wolfe explains why and how to fight back against the people who compile databases on us.

40 Reading animal tracks and signs By Tony Nester

Winter is a great time of year to take the family out to find and identify the tracks of those critters that live around us. Tony Nester gives us some handy hints on how to read those tracks.



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75 Homemade toys! Easy to make, fun to play with, great for gifts! By Cynthia Andal

Farm and garden

66 Precious persimmons By Marcella Shaffer

Winter is the time of year when persimmons come into their own. Marcella Shaffer talks about how to plant and care for persimmon trees, then how to harvest, preserve, and cook their fruit.



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Building and tools

8 Build your own log home in the woods: part 3 By Jackie Clay

In this, the third installment of Jackie's popular "build your own log home series," she finally puts windows, doors, and a porch on the log home we've watched going up for the last two issues.

36 Build a house for less than \$10,000—We did it! By Judy Stalezny Ulch

Believe it or not, Judy Ulch and her husband built their own beautiful home for less than \$10,000. They did it by getting most of the materials that went into it either for free or for next to nothing. In this article she tells you how *you* can do it, too.



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62 Build a split-rail fence in impossible soil By Dorothy Ainsworth

Dorothy's back and she shows us how she built a beautiful but inexpensive split-rail fence on her property with just split logs, some rebar, and a little copper wire.



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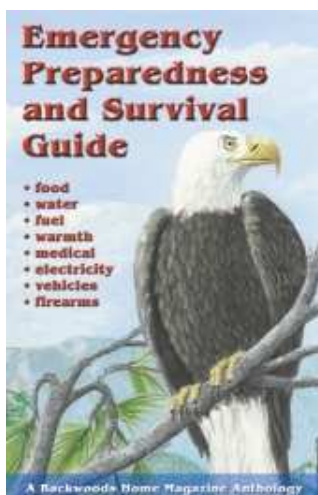
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64 Cookies in a jar By Sharon L. Palmer, RD

Publisher's Note

Emergency Preparedness and Survival Guide

The terrorist attacks have created a surge in people who want to learn how to take care of themselves and their fam-



ilies in an emergency, so we put together a 100-page anthology of articles that addresses the various aspects of preparedness and survival. The articles have been gleaned from previous issues of *Backwoods Home Magazine*, but have been edited, sometimes extensively, to bring them up to date. Most are not contained in any of our previously issued print anthologies.

We've also put together a companion CD-ROM

which contains the same articles as the book—but in their original unedited versions—plus there are dozens more from previous issues. Together, the book and CD-ROM comprise an exhaustive selection of information on preparedness, emergency power, food storage, cooking from food storage, safe water, survival gardens, storing fuel, medical preparation, staying warm, and firearms. See page 3 of this issue for ordering information.

Moving to the Country - A Backwoods Home Primer

The ad on page 2 will introduce you to another booklet we've been creating. It's called *Moving to the Country—A Backwoods Home Primer*, and it's a guide to making the transition from city or suburban life to country life. A number of knowledgeable *BHM* writers contributed to it, and those of you who are con-



templating the move will find it extremely valuable. It's not for sale; you must subscribe to the magazine or renew your subscription to get it.

The Holiday specials

Pages 98 and 99 of this issue have a bunch of holiday specials at good prices. You're bound to find a gift for your self-reliant friend there. Our 3-for-2 special (page 59), which is our most popular special ever, is also back.

And note the anthology special on page 97. It is a very attractive deal in light of the fact we've let our single issue anthology prices float back to their normal prices. All 8 anthologies, separately, would cost \$138.60. So you can save \$38.65 by buying them through the page 97 special.

Blunt, Silveira, Duffy, and Alternative Energy CD-ROMs

We've made four new CD-ROMs this issue:

- *The Best of Richard Blunt*
- *The Best of John Silveira*
- *The Best of Dave Duffy*
- *Alternative Energy*

The first three include nearly all the articles published by the respective writers during the 12-year history of *BHM*. The last has dozens of articles about alternative energy, including solar, wind, hydro, and generator, gleaned from the pages of *BHM*. If you want to learn about all types of alternative energy, this CD-ROM covers A to Z.

Our hearts go out to all the victims of the terrorist attacks. America is a great country, and we will meet this challenge as we have met all the others—with courage, resolve, and ultimate victory. — Dave



WHAT A COOL IDEA - Our main PC, which is womanned by Annie Duffy, crashed two days prior to this issue's deadline when its power supply cooling fan failed. As a workaround, we took off the PC's cover and used the room fan at left to cool the machine's interior.

My view

How do you keep yourself safe?

The overwhelming concerns for most Americans in the wake of the terrorist attacks at New York's World Trade Center come down to: How do I keep myself and my family safe? That's as it should be because if you keep yourself safe, you help keep us all safe, and you help keep the nation safe.

If you are a regular reader of this magazine you probably already do the things that keep you safe: you own a gun and are practiced in using it, you have about a two-year supply of food that is rotated so it is fresh and nutritious, and you have implemented one of many schemes to keep your home sufficiently warm, well lit, and otherwise prepared for any emergency.

If you are not a regular reader of this magazine you may be experiencing a lot of anxiety right now because that is what the New York terrorists attacks were designed, in part, to do—to scare the American people. And if you live in a big city you are probably particularly anxious because you know that cities make better terrorist targets than small country towns and homesteads, and you probably have all sorts of laws against owning or carrying guns, and you are not inclined to keep a supply of food or fuel, and you aren't prepared for anything. I'm not really sure what you can do.

Travelling is a different matter. Even the well prepared readers of this magazine sometimes travel, even on airlines. What can you do when you travel?

Ever since the terrorists attacks, I have been repeatedly told by the politicians and talking heads on all the television news channels that this is not a time for "finger pointing," so I guess I shouldn't point out the fact that our liberal politicians have made it virtually impossible for us to protect ourselves when we travel. Even if you own a gun, you cannot legally take it anywhere except maybe in your home state. It's good to hear some people on TV at least talking about putting armed sky marshals back on planes, arming the pilots, and making the barrier between cockpit and cabin impenetrable.

But they'll never let you carry your own gun with you when you travel, no matter how many hours of training you go through. Back when they had armed sky marshals aboard planes, a lot of passengers complained that it made them nervous, so as soon as the funding ran out they discontinued the practice. Imagine the difference a gun could have made in these terrorist attacks?

So what can you do? Well, you can determine ahead of time that you will never ever consent to becoming a sheep in a hostage situation. Let's take a lesson from those brave people aboard United Flight 93, which crashed in

Pennsylvania, short of its terrorist target. Some of the passengers had learned via cell phone that the terrorists were crashing the hijacked planes into buildings so they decided to try and stop them. They apparently succeeded by rushing the terrorists.

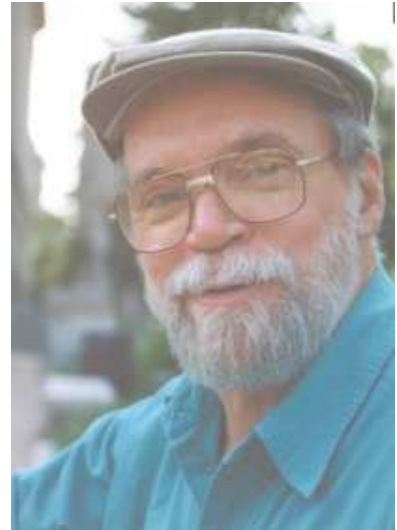
You can prepare yourself for a similar situation by becoming an island of resolve ahead of time. Simply decide you will never go down without a fight and prepare yourself accordingly, whether that means taking a martial arts course or making some other contingency plan. Hit the terrorists with your laptop computer, or with your fists if that is the only weapon you have. But determine now that you will never be a passive victim.

What help can you expect from politicians and bureaucrats in the wake of these terrorist attacks? At Boston's Logan Airport they banned the sale of knives because the terrorists apparently used box cutters and plastic knives as their weapons. If the terrorists had used guns I can guarantee you the response would have been more gun control. (What we actually need is a national concealed carry law.)

The politicians and TV talking heads talk mainly about a war against terrorists that will make them stop their terrorism. Maybe that will work. We could bomb countries like Afghanistan back into the Stone Age, but they already live a near Stone Age existence after having undergone some 20 odd years of nearly continuous war. We could assassinate people like Usama bin Laden and Saddam Hussein, but that still leaves millions of people around the world who hate Americans due to our "policeman of the world" foreign policy. But now I'm engaging in finger pointing and the politicians have told me I shouldn't do that.

So my advice comes down to this: Take care of yourself and your family. If you think you can handle it, buy a gun, learn how to use it, get a concealed carry permit, and keep it with you so you can protect yourself against terrorists and criminals alike.

Then grab the nearest gun grabbing liberal you can find and throw him out a window. — Dave Duffy



Dave Duffy

Build your own log home in the woods

(This is the third part of a three-part series. The first two parts appeared in issues 70 and 71.)

By Jackie Clay
(Photos by Bill Spaulding
and Jackie Clay)

In the last two issues of *Backwoods Home Magazine*, we carried this series on building your own log home from the beginning planning stage, through actual stacking of logs, to finally roofing that great log home in the peaceful woods—our lifelong dream.

As you read, keep in mind that hundreds of thousands of plain, common folk, often with very little building experience, have built their own log home. Never get discouraged when sarcastic people who only color within the lines put down your dream. You *can* do it. And when you finish, you'll have a home that is economical, easy to heat, and nourishing to the soul.

As we left our log home project last issue, we had the roofing material on and the log building looking like a home. But there's still a lot to do yet. Let's get started.

Windows

As moisture will warp and discolor wood in your new home, you'll want to get it dried-in as soon as possible. And, as most "holes" in your new home are window openings, let's get these in first.

Both my husband and I have some Scotch blood, so perhaps that's why we hate to pay full price for anything, including windows. Now you can go down to the local window dealer or large building supply and pay upwards onto \$1,000 or more for



All the windows in Bill Spaulding's (Jackie's son) new log home came from a builder's warehouse of rejects.



*This is the half-log stairway I built in our last log home.
It took two days, and if I can build it, you can build it.*

each window, as many people do, *or* you can be frugal, as my son, Bill, just did, and seek out a builder's warehouse where "returned" windows end up. These windows are new, ordered for jobs, and were rejected. Perhaps they were the wrong size, the wrong brand, not picked up, had gone out of stock or whatever. But they end up warehoused and sold for very little. Bill bought *all* the windows for his new log home, including a pretty set of French doors, for less than most folks pay for one large window. Does \$50 or \$200 each sound like a great deal to you? We thought so, seeing he bought name brands, like Marvin and Pella.

Look in large-city phone books for such a warehouse, under windows or building materials. Ask your large building supply dealer and local large contractors where rejected windows go. You'll have to do some detective work here, but you *can* find good buys and still use quality windows that will last for years and help energy costs in the bargain. "Cheap" windows are never a good buy. As we

don't always get the exact sizes in these bargain windows, we usually opt to make our window openings smaller than we figure we can find a window to fit. In this way, we have a larger choice of possible selections that will work in a wall. Can't find a 36 by 60-inch horizontal sliding window? Well, how about this great 38 by 60-inch window? Yep, we can do that. Flexibility saves money and is one reason we only use temporary window framing tacked into the logs as we do the rough building.

Now if you were lucky and had plenty of long logs, you may have a log rectangle with perhaps only a door opening—no window openings, at all. Should this be the case, you have the greatest flexibility in choosing your windows and doors. Take a list with your "rough" choices to your bargain window warehouse and shop for what will work for you.

You will not be nailing your pre-hung doors and window framing directly to the logs, nor to a 2x6 or 2x8 frame, which is nailed directly to the logs. This causes logs to hang up during settling which always occurs

in log building. You will ALWAYS need to allow for settling, usually about $\frac{3}{4}$ inch per foot of log wall height. I've seen a lot of log homes with cracked window glass, doors that dragged while opening and shutting, windows that would not open—or close once open—all due to not allowing for settling.

To prevent this type of problem, simply add enough space *above* each door and window opening to let the logs settle as they will, easily and comfortably. During the interim time, just use a neat trim board and insulation to cover the "hole" above each door and window until the logs have settled.

And, to keep your window and door frames from holding the logs from settling, slot the vertical sides of each opening to receive a 2x4, which itself is slotted at each spike, into each log. As the building settles, the spikes will slide in their slots, letting the logs settle downward without hangup. (Cut each 2x4 short enough to allow ample room at the top for the top log to settle; you don't want your 2x4 to hold the logs from settling.)



Photo shows window framing nailed onto recessed, slotted 2x4s; note space above to allow for settling.

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Your door and window frames are screwed or nailed onto these vertical 2x4s and the bottom log, which can be cut in half if necessary, horizontally. The top of the frame “floats” several inches shy of the log above.

Cutting openings

Carefully measure your first window, including space for the frame. Decide where your window should sit on the wall, and with yellow carpenter’s chalk make a mark at the first top corner. Use a level and measure and mark the second top corner. With a plumbline or level, mark the vertical line and measure the two bottom corners. Don’t depend on a log being straight or level. It may or may not be. Remember the builder’s old saying: “Measure twice, cut once.” Once you take a chainsaw to those logs, you can’t “put it back.”

Use a hardhat and safety glasses when cutting these openings. Yep, I

know they’re a pain and hot and all of that, but chainsaws can buck back when cutting openings in a log wall, especially if you’re not extremely experienced in operating a saw.

Work the tip of the saw downward into a log, not necessarily the top log. You can later cut upward, more comfortably. Have the saw reved up and the chain moving at maximum speed as you contact the log and, following your chalk line, carefully cut the line downward. If you must, finish your line upward.

Then cut your second line, one log at a time. Remember that these logs are now free and can come tumbling down. It’s best to have a helper behind you to steady the logs. With Swedish coped logs, you may have to “help” them free of the opening with a maul, as the lower edges of each log sit astride the lower log.

If your window opening requires you to cut halfway or less into the top and/or bottom log, this should be done after the rough opening has been cut. You can either chainsaw horizontally, cutting the entire chunk out in one piece (be very careful of kickback here) or you can make several vertical cuts like you did when you make notches, using a hand axe to chip out the chunks.

Keep in mind that all lower window framing should have a slight slant downward and outward to drain moisture away from the window and logs. If your factory window does not include this (and it should) slant your frame slightly during construction. Have you used large diameter logs? If you have, you might like to bevel the ends toward the opening, as an artis-



This hunting cabin was the first log building project of Bill Spaulding and friends Matt and Andy. All now married, the guys bring home the bacon every year (hopefully).

tic touch. I like to do this, as I think it dresses up the whole house. To do this, simply use a lightweight chainsaw and trim three corners off each log butt, angling down toward the opening, slightly. (Practice this on log scraps to get the right technique.)

Now, with your hole cut, again measure your window and trim the hole, if necessary, for a good fit. Then measure and lay up a vertical 2x4 and mark (use a level) for the slot in the log ends. You can cut this slot with the tip of your chainsaw, again using care to guard against kickback. Always begin cutting downward. Several passes are needed, but you will soon get the hang of slot cutting and the work goes quickly. When the 2 by fits nicely in the slot, mark where each spike will go into the center of each log with an X. Then draw a line *below* each X, allowing $\frac{3}{4}$ inch for each foot of log wall height. For instance, multiply .75 times 8, if you have an eight-foot log wall, and you will come up with 6 inches of settling allowance. Thus you'll need a 6-inch slot below each spike to allow those logs to settle nicely.

I lay the 2 bys on the ground, supported by log scraps underneath. Have a helper hold them securely, but safely out of the way. Then, straddling the 2x4, I chainsaw each slot.

When finished, spike each 2 by in its slot, the spike at the top of the slot in the 2x4. Sure it's a lot of work. But when you do it right, your doors and windows will open and close for decades to come.

Doors

Some of the nicest doors I've seen in log homes have been handmade. You can get very artistic if you've got the time and inclination, carving wilderness scenes in a simple plank door. Today this is easier than you might think, using one of the handy woodcarving tools, such as a Dremel. This hand-held power tool quickly cuts and chisels designs into wood.

Even a novice woodcarver can create wonderful, exquisite doors in a day or two. One fellow I know used a picture in a coloring book as a guide and ended up with two black bears and a moose wandering up his pine-tree studded front door.

With a little imagination, you can create a great compliment to your log home. Don't want to go "fancy?" A simple plank door, made from half-log siding or plain tongue and groove 2x6 lumber, strengthened on top and bottom with horizontal 1x4s and an X brace of the same lumber in the center does a great job. I made just such a door on the back of our Minnesota homestead many years ago and it's looking good today.

You will frame your door, as you did your windows, using vertical 2x4s in a slot, slotted to allow for settling. Be sure to allow room at the top for settling, as well.

When using a homebuilt door, be sure to either use a factory hardwood threshold, which is sloped to the outside, or create one of your own. Always slope any openings in the log walls to the outside to direct moisture away from the building.

Of course you can always use factory-built doors for your log home, or choose to build a pretty door for your main entrance, and opt for factory doors for the other doorways.

Insulation

As with any other home, you need to insulate any non-log outside walls and the roof. Although expensive, fiberglass insulation is usually the best bet. Rodents will not chew it to pieces and it is quite easy to apply. Without insulation, the energy expended for home heating and cooling will be astronomical. One uninsulated log home I lived in required 14



Upper end of porch rafters beveled to fit onto roof, centered on house rafters. Andy Gunderson, Bill's friend, helps spike porch rafters on their hunting cabin.

cords of hardwood to heat during a winter. When the roof and gables were insulated, the winter wood needed dropped to 7 cords and the home was much warmer.

Please don't use alternative insulation, such as straw, cardboard, or sawdust. Not only will these be a great fire danger, they are less effective insulators and they attract rodents. Better to use no insulation and wait until you can afford rolled fiberglass.

Pressure washing logs

As log building often takes a good deal of time, from several months to a few years, logs change color from the time they are peeled to the time you are ready to put a sealing stain on them. And not only do they usually grey, but often surface mold and mildew builds on the surface of the logs, making them quite unattractive. There is a quick and cheap method of renewing the logs' beauty, however. Rent a pressure washer.

Not only will the pressure washer remove greying and mold stains, but it will remove dirt and marks, stray bits of inner bark, carpenter's chalk marks, and foot tracks. (People who

walk on those gorgeous logs while you're building seldom do so with clean booties.)

A solution of mild detergent and plain chlorine bleach is all you need to do a great job. Go light on the bleach; half a cup per gallon of water is enough.

Mix your solution and begin spraying. Start on the back top of your house and you'll soon get the hang of it. Don't stop and concentrate too heavily on one area or you may cause

damage to the fiber in the log. If a spot doesn't come clean, use a brush and stronger solution.

Do one wall completely, top to bottom, then rinse it well. Then move on to another wall. If you do the whole house, waiting until you finish to rinse, the solution will soak into the logs and dry, making rinsing difficult.

Most homes are not large enough to make pressure washing an option inside plus the flooring would be damaged by that much water soaking in. A good midground here is to use a bucket of detergent/bleach solution and a scrub brush. As the interior logs are usually a whole lot less grey and stained, they clean up in a jiffy. But be sure to rinse well. I use a mop and clear water to rinse, and old towels to dry things (and me) up a bit.

After pressure washing, it's a good idea to examine your logs for rough knots, saw marks, and deep scratches. These can easily and quickly be touched up with a disc sander and hand sanding to finish the surfaces.

Should your log home's logs still have ragged, uneven ends sticking out far past your notches, this is the time to cut them even, about 18 inches past the notch. If you cut closer, you have no option to trim weathering



A porch is a great finishing touch to any log home.

ends in, say, 40 years. Okay, so your kids may be the ones to trim the ends; the point is that your home will have the option, unavailable if you trim your ends too close to the notch.

Some log builders add artistic touches to their log ends, beveling the ends all around, leaving the upper logs longer and cutting a curve down to the mid height and so on. Let your artistic spirit fly. One method I don't like, structurally, is cutting a curve which leaves the lower log ends longer with much exposed cut surface available to the weather. This is rotting, waiting to happen.

Staining and sealing

Give your logs a few days to thoroughly dry and you will be ready to put a sealer on your logs to protect them and prevent them from discoloring in the future. Yes, you *can* just let nature take its course, but your logs will last a whole lot longer and remain beautiful if you use a sealant.

Use a true log sealant, not just your run-of-the-mill stain you got from the lumber yard. It does cost more, but you'll get much more protection for your buck. And even the best sealants can "wear out" due to weathering and sunlight. You need to check the logs, especially on the south side every few years, recoating when necessary.

You can choose from dozens of colors and shades of sealant, from clear to very dark, all of which will protect your hard-earned log home from the savage teeth of the weather. The choice of color is totally a personal one; some like a very light beige and others, me included, prefer a dark (pine bark in the shade) log.

Sealant can either be brushed on by hand or sprayed, according to product directions. If you choose to spray, you'll have to mask the windows (or spray before installing them) and rent a quality sprayer if you or your friends don't already have one. A cheap sprayer produces shabby results.

Many log builders use two coats of sealant on raw logs, one which soaks in and another, often, just for added protection. I would personally recommend this because planning on giving a second coat next year often results in never getting around to it.

Porches

I think the perfect log home is incomplete unless it has at least one porch. Not only is a porch soul-satisfying to look at, but it's darned nice to sit on before work begins in the morning or when we're tired in the evening. We often spend hours after dark on the porch just looking at the stars. You find more peace there than anyone does "relaxing" in front of the boob tube.

And a porch is useful, too. It's a place to kick off muddy boots, out of the weather, a place to store a couple of day's wood, all nice and dry. It gives a place for the dogs to go under to get out of the sun or rain, and it makes a great place to eat frequent meals. Company can even bunk out on the porch and keep the dew off their blankets. (Folks beg to sleep on our porch, just so they can watch the stars and mountains.)

A porch is easily added while building your log home. I like to get the house dried in, then work on it. But you can build the porch on as you work on the house if it suits you.

To get started, simply measure out from your house wall, eight or ten feet (a porch can be narrower, but you'll soon wish it were wider) and dig a hole for an 8-inch sonotube (the heavy cardboard tubes we used in the house footings), one out from each corner and one every 8 feet or so across the porch.

I dig down two feet in solid soil, more in looser soil, slide a sonotube in with rebar extending almost to the point I figure on cutting the tube off where the top will be level with my needs. Then make the *first* pour of cement.

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The next day the concrete will have set up enough to cut the tubes. With a chalkline, mark a level line across all tubes about eight inches up from ground level. Then mark another level line on the side of each tube. This will help you cut the tubes off straight and level. Cut the tubes carefully with a chainsaw. Then embed a 3/4-inch anchor bolt in each tube, to be left with six inches sticking out above the concrete. (These will hold the porch posts in place.) Wet yesterday's concrete if it has dried, then make a *second* careful pour and level each tube top and anchor bolt.

Most of the "big-guy" log home builders place adjustment screws under each porch post in lieu of the anchor bolts we use. But they usually are building huge homes and in only several weeks. We backwoods folk usually take over two years to get around to the porch and the logs in the home have settled just about all they will.

While the concrete is curing, prepare your porch posts, cutting them to length, peeling them, assembling 2x10s which will support the lower end of the porch rafters, and cutting and peeling porch rafters. (Remember to allow for the roof pitch and at least a three foot overhang when cutting those rafters.) I usually cut them a little long and trim them on the building for a perfect result.

The porch rafters should be poles of at least 4-inch diameter on the small end to be serviceable and match the house well. Dimension lumber can be used, of course, but it will never look as nice.

Each porch post is drilled, on center, to receive the anchor bolt in the footing concrete, then it is lifted and carefully set in place. For safety's sake, it's a good idea to nail a brace from the top of the post to the ground to keep the posts in place until the rest of the porch framing is finished.

If your home is relatively low, you will probably have to rest the upper end of your porch rafters up on the house roof, two or three feet up from the eaves. Be sure to center each rafter on a house rafter for a secure joint. (If this is the case, you will need to make allowances for the porch when roofing this side of the house, especially if you're using sheet metal roofing.)

A taller log house can have the porch rafters spiked onto a log on the front of the house below the roof.

Also rest the high end of the rafters on a 2x6 spiked onto the log below them. Many log builders notch into the house logs to receive the upper end of the porch rafters. This makes a strong, very attractive joinery system.

When all posts are in place, hopefully with a helper or two, spike the 2x10 across the front of the porch, making sure it's level. In areas with a heavy snow load, notch the upright porch posts to receive the 2x10. In other areas, it is acceptable to simply spike the 2 by onto the posts keeping everything square and level. It's generally adequate to space the rafters every two feet along the porch roof.

Then, having a bevel cut on the upper end of your porch rafters and a gentle notch on the lower end to fit over the 2x10, spike the first rafter in place. Do the opposite end of the porch next, taking great care to get everything square and level. Finish spiking in your rafters and your porch is beginning to look like a porch.

With a larger home it is a good idea to add a horizontal brace on each end of the porch, being notched and spiked into the log wall and the corner porch post. This prevents any twisting of the porch, due to wind or snow weight.

Your actual roofing can be rough sawn lumber from your own woods for a more rustic (yet serviceable) look or tongue and groove 2x6 finished lumber. Take care to knock off any knots on the upper surface of

your rafters so your roof lays down nice and level. Any dips may be shimmed up with wood wedges.

Sheet the roof with tar paper, then cover with roofing that matches your new home. Pretty nice, huh?

Now for that sitting surface. Notch-in and nail your perimeter floor beams to the posts. Then simply deck the porch floor as you would a deck, using either treated deck lumber or homegrown 2-inch planed lumber, spaced ½ inch apart for drainage and given a good double coating of deck sealant. As with your logs, your porch can be nearly any color you desire. One handy hint: use deck screws, not nails. The nails will work loose over time, and you'll be sorry you didn't take the little extra time and expense necessary to do it right.

One more thing and you've got a porch. You need a couple of good rocking chairs or a porch swing. This is a must. Only out in the boonies does one get the full pleasure a porch is meant to give. I promise. Togetherness is fulfilled on a porch—family, friends and neighbors.

Half-log stairway into the loft or second floor

If your log home has a loft or second story, you're going to have to get up there, right. Now you could simply build a ladder out of poles or nail up a traditional stairway made out of dimension lumber. But if you've gone to all the trouble of building a very personal log home, why not pull out all the stops and put together a great half-log stairway? I'm no carpenter, but I can whack out a pretty neat half-log stairway in two days' time. And if I can, you can.

I know there are a lot of mathematical formulas out there for getting stairways right. But I never paid much attention to math. So I find a pretty log I like, at least 10 inches in diameter, and rough bevel the top end to fit the upper wall, where the stairs should be. Then I make rough adjust-

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ments to the log to get it to fit where I decide I want it. When done, your log should fit nicely from floor to a sturdy header or floor joist of the upper floor.

Now is the time to decide whether you want to use two matching log stringers for your stairway or simply cut this log in half. If you have plenty of room, I'd suggest using two full logs, as it looks great and is *very* sturdy.

Tack your stringer log (don't cut it yet) into place, where it will go, then decide where your stair treads will need to go. Stop here and walk up and down several sets of stairs. Everyone is different in their stride, in their balance. Find a set that feels right to you and your family and make a note of the distance between steps and the angle of the stringer. Too steep a stairway and it is not only dangerous but very uncomfortable to walk daily.

Now measure where the *tops* of each of your intended steps will be and make a carpenter's chalk mark, level.

You will be cutting "C" shaped notches in the log stringer to receive half-log steps. The flat surface of the half-log will be the step.

Now choose a few mid-diameter logs for this purpose. I prefer to use fairly large logs, say a 12-incher, as by sawing it in half I still have a 6-inch thick, 12-inch wide step. The wider the stairway is, the better, in my book, constrained only by your available space in the room. Realistically, your stairway will probably end up three feet wide; I like a 6-inch overhang for artistic purposes, in addition.

By sawing a small slice off your first stair-step log, you can position it below each of your chalk marks and draw around it with your chalk. This will be your "C" shaped notch to receive the step.

In a few minutes, you can fully mark your log stringer. If you plan on

using two full log stringers, lay your second stringer next to this one and carefully mark it *exactly* the same as the first. Then, using the same notching process you used on your log home notches, making many cuts almost down to your mark with a chainsaw, then trimming out the excess, cut all the notches in both stringers. Use a chisel to "fine tune" your notches to perfection.

If you are planning on using half-log stringers, simply notch out your one log stringer, then snap a chalkline down the center of the stringer and very carefully saw down the center, cleaving the log in half. (Be extra careful to run the saw smoothly on the faces of the notches or the narrow lip may chip off. But by now you should be able to cut a dress pattern out of a tree. And if you screw up, there's always more trees in the woods. Use your ruined stringer as a pattern, then make a short log stairway out the back door or down off the porch. Waste not, want not.)

Then, in a like manner, cut enough stair logs in half to make your stairway. Then spike the puppy together. By pre-drilling holes with a slightly smaller drill bit, you won't split any half-logs.

I've used smooth, drawknifed poles for a rustic yet beautiful railing, and lighter poles for balusters, whittled to fit tight into holes bored in top and bottom rail. Just like in those expensive log home magazines. Only with the innate satisfaction of having done it ourselves. It's what backwoods living is all about. Welcome home! Δ

Knowing survival fire craft can save your life

By Robert N. Anderson

No matter what particular sport we call our own, we practice it to become the best we can be. However, when it comes to a skill that can possibly save our lives, we rarely practice it, because as we all know, a survival situation always happens to somebody else. It will never happen to me, even if I am kayaking a remote coastline, backpacking a distant wilderness, scaling a lonely crag, or driving home in a snowstorm. The

ability to start a fire in the wilderness is one of the most basic survival skills, and probably the least practiced.

This is really unfortunate, because building a fire is the one survival skill that will save your life. A fire provides heat for cooking, allows water to be boiled prior to drinking, and can be utilized as a signal or for protection. But most importantly a fire provides warmth, and the ability to stay warm is what will save a life in a survival situation.

Information on fire craft must be gleaned from numerous sources. Review survival literature, dig out your old Scout handbook, read any and all magazine articles on the subject, and search the world wide web. But no matter how well read on the subject, I would not trust my life to just "book knowledge," no matter how extensive.

To be proficient in firecraft, it needs to be practiced. So how can we practice building a fire under all the adverse conditions that can possibly be encountered while in a survival situation? Practice in those same adverse conditions. Practice firecraft when it's cold, wet, windy, and also when it's sunny and warm. Practice in the rain and in the snow. It will be a bit uncomfortable, but the experience gained will be invaluable. The knowledge which is gained might just save a life. One of the quickest lessons learned will be to have more than one method available to ignite the fire.

As any firefighter will tell you, the classic "triangle of fire" consists of heat, fuel, and oxygen. All three items must be available in sufficient quantities to have a fire. In a survival situation, there is a fourth item, balanced precariously on the top of the triangle, and that is patience.

Patience

Patience is truly a virtue. It is perhaps the most important aspect of survival fire craft. It is tempting to build a huge roaring blaze, which will quickly deplete your fuel resources, but keep your fire small and comfortable, so you'll be able to get close for warmth. You must take the time to gather sufficient quantities of your materials. You must choose the right



location, prepare that location and construct your fire lay in such a way as to promote combustion. Rushing in your attempts can exhaust your supply of materials as well as your method of ignition.

What is a good location for your fire? Someplace protected from the elements and close to any shelter that you have constructed. While sheltering yourself, remember to shelter your tinder, kindling, and fuel as well. If you are building your fire in snow country, do not build your fire under snow laden branches, because as the heat rises a miniature blizzard will come crashing down onto both you and your fire. If the snow is deep, build a "raft" of green logs as a fire base. In all other conditions, prepare the area by scraping down to the bare earth and pushing all organic and any combustible materials 10 feet away. Gather your materials and take the time to divide them by size or purpose. This will make the fire starting process much easier. A little patience *does* go a long way. Take your time and get it right, so that you are successful on your first attempt.

Fuel

To properly build a fire, the fuel category will be divided into three sub-groups: tinder, kindling, and fuel. Gather at least three times the amount you think you will need and never start a fire without at least one hour's worth of fuel on hand. Stories abound of people utilizing a last match to start a fire, then going off to gather more fuel only to return to cold ashes.

Tinder is the beginning of any wilderness fire. It is a material that will burn intensely at the touch of a match or the landing of a spark. It is usually dry and airy, a very light material. Dried grasses, shredded bark, cattail or seed-pod fluff, and bird's nests are all excellent natural tinders.

The most important thing to realize about tinder is that unless you are

110% positive that you can locate dry tinder in any and all weather conditions, you should bring some from home with you. Personally I use dryer lint, mixed with the charcoal dust that was left over in the charcoal bag. I add a minute amount of vegetable oil to this and store it all very nicely in an old 35 mm film canister. A large amount can be compressed into the canister and I can use as much as needed. Commercially prepared tinders, such as fuel tabs, fire paste, or fire sticks are fine to use. No matter which type—natural, homemade, or commercial—you chose, all have some sort of drawback. Try them all and make your own choice. Learn about them all so there can always be a "Plan B" to fall back upon.

Kindling is small pieces of wood, twigs, and small branches, usually up to the size of your small finger. Anything larger than a pencil should be split, since split wood kindles easier. Kindling burns with a little assistance, which is supplied by the burning tinder. Kindling burns intensely and quickly. It feeds the fire enough to allow the fuel to ignite and burn.

Fuel is what maintains your fire. Ideally, it will be wood about wrist-thick and dry. Again, if it can be split it will burn easier. The smaller the fuel, the hotter and quicker it will burn. "Squaw wood," the dead dry branches at the base of trees, are excellent for fuel as well as kindling. Wood found on the ground will always be damp. Look up for a dry fuel source. Don't waste time and energy cutting the wood to length, just place an end in the fire and, as it burns, advance the unburned portions into the fire. Hardwoods burn longer and result in a hot ember bed, whereas softwoods burn faster and give a more intense flame.

Heat

Heat is the category that involves how you will ignite your fire. Once

the tinder burns, its heat ignites the kindling and the kindling's heat ignites the fuel. The heat of the burning fuel is maintained by adding more fuel, continuing the burning process. But how do you initially supply the heat needed to ignite your tinder?

Most people rely upon matches for their fire starting needs. Good quality waterproof, strike anywhere matches are the most economical. Strike anywhere kitchen matches can be waterproofed by dipping them in melted paraffin. The important thing to remember is to scratch the paraffin off before attempting to strike the match. Many people waterproof "safety" or "strike on the box" matches. Unfortunately if the striker panel gets wet, you will be unable to ignite the matches. Never use paper book style matches, as they are moisture magnets and simply do not hold up.

"Light a match, light a candle" is an old woodsman's adage. A candle stub and waterproof matches can be found in many an old timer's pockets. Trick birthday candles, the kind that can't be blown out (magnesium in the wick retains the heat and reignites the flame) are another handy item to have. A candle might seem overly simple, but simplicity works well when a life depends on it.

Many people carry disposable butane lighters that sell for about one dollar as a backup flame source. These must be kept warm if they are to work. If it is very cold and they are stored in a pack, they simply won't work. They must be carried in an inside pocket to be kept warm by the body's heat. These disposables also have the explosive potential of a stick of dynamite, so common sense must be used along with them. A wind-proof lighter such as a "Zippo" works well as a backup. The design has basically remained unchanged since the 1930s. Of course, you must make sure you have enough flint and lighter fluid in the lighter. There are also high pressure butane lighters with

piezoelectric ignition. These are on the high end of the cost scale, but are truly wind and waterproof.

An ever reliable source of heat is the old flint and steel. Natural flint is a hard quartz rock and the sparks are minute pieces of the softer steel heated by the friction. These sparks aren't very hot or long lived. Manmade "flint" is an alloy of various materials. The spark is much hotter and lasts longer.

There are many types on the market. Some come attached to a magnesium bar, which allows scraped magnesium to be available as a tinder. Magnesium ignites readily from a flint and steel spark and quickly attains a temperature of 3600°F, which makes it a very effective fire starter.

Some are packaged with names like *Metal Match*. One of the most impressive flint and steel units is the *Blast Match Fire Starter*. This contains a ½" diameter manmade flint with a steel scraper built into the case. This allows one handed operation, which can be useful in the event of injury. Most people have a knife with them, so steel is readily available. Remember to strike with the spine of the blade, as not to wear down the edge needlessly. All flint and steel can be a bit persnickety, so to use and be successful one must practice. Never waste a match when you have flint and steel.

There are numerous other methods of obtaining heat. Steel wool (0000) stretched out and fluffed up, then touched to both terminals of a nine volt battery works very well. Optical methods such as a magnifying lens, or a binocular or telescope lens helps condense and amplify the sun's rays, provided the sun is out.

Oxygen

Any fire must have oxygen to burn. Without it you soon have a smoldering smokey source of frustration. The fire lay must be one that allows the

fire to "breathe." Oxygen is as vital to a fire as it is to you and me. The three main choices are the teepee, the lean-to, and the criss-cross fire lays.

In the **teepee**, the tinder is placed in a pile with kindling piled to form a teepee. Small fuel pieces are stacked in the same manner, around the tinder and kindling. A small opening is left to allow the contents to be ignited and to allow air into the fire's center. Once burning, larger fuel is stacked in the same manner.

The **lean-to** fire lay has tinder and kindling placed to one side of a larger log, which acts as a windbreak. Once ignited, fuel is leaned against the larger log over the burning kindling.

The final method is the **criss-cross** method. Tinder and kindling are placed between two larger logs, set apart a nominal distance. Once the tinder and kindling are ignited and burning fiercely, fuel wood is stacked in alternate directions between the logs.

How to

You have read all the materials you can find on survival fire craft. You carry numerous materials to produce a spark or flame. You gather all the materials, choose a great location, but you are unable to get that fire going. Just add a little more patience and take the time to practice. Experience is the key.

What will experience teach you? If practiced in the worst weather you can find, when your life does not depend on it, you will learn to anticipate what difficulties to expect. And, how to prevent those difficulties.

Your tinder catches, now add some of the patience. Most people are so excited and relieved with any hint of fire that they add too large and too much wood too soon. Blow gently on the tinder and soon it will be burning brightly. Once the tinder is burning brightly, continue to blow gently and add more tinder and small pieces of kindling. Do this very carefully or

you will smother the young flame. Blow gently on the base of the fire to help coax it along. As the fire progresses, add larger kindling. This is easy to do since you have divided your materials by size and purpose. Add larger and larger kindling until you have a steady blaze that is sufficient to ignite your smallest fuel. At this point, you shouldn't have to coax it any farther. Continue to add the fuel to maintain your fire.

Remember to keep your fire's size where it remains comfortable. Utilize some sort of reflector to bounce back some of the fire's heat. If you utilize a rock face as a reflector, sit between the fire and the rock face.

Above all remain calm. Panic is your worst enemy. A fire makes an effective signaling tool. If you can, build three signal fires in the shape of a triangle. Three is recognized as a sign of distress. Place the fires approximately 20-30 feet apart. These will be easily seen by any search aircraft during the hours of darkness. During daylight hours, smoke can be seen for miles.

Generate white smoke against dark or green backgrounds, and black smoke against white or snowy backgrounds. White smoke can be generated by the burning of green leaves or pine boughs, black smoke by the burning of products containing hydrocarbons.

Since it is impractical to keep the three fires burning, have them set up and ready to be quickly lit. Remember to protect them from the elements or they will wind up being useless brush piles.

Realistically, it may take a while for you to be located and rescued. However, having a fire will make it considerably less uncomfortable and will probably be the one thing that saves your life. Δ

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Ayoob on Firearms:

Do rural homeowners need guns for self-defense?

By Massad Ayoob

Do rural homeowners need guns for self-defense? Sometimes they do and sometimes they don't, according to Ayoob's experience, but those who did never really knew they would until it happened.

I've spent a lot of time running with big-city cops to learn lessons from them, but I've never been one myself. I was always a small town officer. I spent eight years at one growing town that was next to the state's biggest city, but also had remote corners that were virtually Appalachian. The second was a genuine rural community a couple of towns over from the first one, where I did two years as sergeant and six as lieutenant. In the eleven years since, I've served a genuinely rural small municipality that would be even more blessedly quiet were it not for an interstate highway passing through it that's a drug conduit from Montreal to the Boston and New York metroplexes. Moreover, I've done it all as a part-time cop with full arrest power and rank authority, a few hundred hours a year; what I do full time is teach this stuff.

This may be why Dave Duffy picked me to write this column, instead of a big city career cop. One of the big reasons people give up the city lifestyle or the 'burbs for a "Backwoods Home" is their perception that they'll be safe from crime.

Don't bet on it. The bad guys in the cities you fled or want to flee figured out a long time ago that the "Thin Blue Line" is thinnest in the hinterlands. America is the society that is interconnected by Interstate highways. Most of us in rural law

enforcement have very strong reason to believe that a lot of burglary and violent crime in our provinces is done by out of town city punks who don't want to crap where they live. Sure, we have our indigenous country scumbags, but we can generally stay on top of them and take care of them expeditiously.

Let me tell you a true story from a long time ago. I was a young patrolman on the rural edge of that first community I told you about. I wrote about it in a book called *In the Gravest Extreme* when the memory was a lot fresher in my mind, so let me quote from that now.

The call came over the radio and I hit the lights and siren. A drug-crazed suspect had forced his way into a suburban home on the edge of the community I patrolled.

He was gone when we got there, but he had already left a residue of fear that would never go away. He'd had the wife down on her living room couch when the husband, hearing her screams, grabbed his Walther .32 auto from his night-table drawer and ran to her aid.

The guy heard him coming, and threw himself to his feet to take the husband. The guy was big. Then he saw the pistol...and got small.

He backed out the door screaming threats, covering his face like a vampire in a late-show movie cringing from a crucifix. By the time the husband had chased him out, his wife had run to the bedroom closet and fetched the loaded 12-gauge. As the druggie stood on the lawn screaming obscene threats at the homeowner, the latter fired a round of birdshot into the air, and the attacker fled into the woods.



Massad Ayoob

During the hours that followed, as I and a contingent of brother officers stalked the suspect through the woods, I reflected on the value of that little .32 automatic in that man's night-table drawer. We'd had a decent response time—we were on the scene less than a minute after getting the hysterical phone call—but as I crept through the pitch-black woods that night, listening to the sound of the bloodhounds, I couldn't help but wonder what might have happened if he hadn't had that little gun. I admit, I didn't reflect on it too much at the time, because I was more preoccupied with the sounds and movements around me as I still-hunted the brush with a Kel-Lite flashlight going on-and-off in one hand, and a Colt .45 automatic in the other. But I knew damn well that without the little .32, we might not have gotten the call until it was too late.

Later that night, when the thing was (bloodlessly) ended, that man came up to me and said, "Officer, my wife is afraid they're going to arrest me for threatening him with a gun. They aren't, are they?"

I put my hand on the guy's shoulder. I told him he wouldn't be arrested. I told him to come in to the police station Monday morning and see about getting a "carry" pistol permit. And then I gave him the address of a friend of mine who runs a police equipment shop, and promised him a discount on something bigger than a .32 automatic. Somewhere in between came a lecture on trusting the frail hook-and-eye lock on his screen door.

That was then. This is now. Little has changed.

The citizen in that incident was about my age, then. With all the intervening years, he could have died of old age. I hope not. But if he is gone, I hope it was old age. An old age the loaded guns he kept where he and his wife could reach them bought for them both.

The overwhelming majority of encounters between armed citizens and violent criminals end just that way, whether in the depths of the inner city or in the wilderness. Perpetrator begins to attack. Perpetrator sees gun pointing at him. Perpetrator suddenly decides that he has made a terrible mistake, and is about to die from what I've come to call "sudden and acute failure of the victim selection process." Perpetrator either flees or surrenders. End of story. Most of the time.

Sometimes, the predator is so obsessed or enraged, so drugged out or drunk, or just so unbelievably stupid that he continues the attack. When this happens, the citizen/victim has no choice but to steady the gun and pull the trigger. This is the moment at which you will need not only the wherewithal to do what needs to be done, but the skill and

familiarity with the firearm to allow you to do so.

The great defensive handgun expert Jeff Cooper once said that combat shooting training and practice was akin to lifeboat drills on an ocean liner. It was, one hoped, the last skill you would ever have to employ during your journey. But, if you did need it, it would be a skill you needed desperately.

Let's go back for a minute to the story I recounted earlier, from the 1970s. I'm proud to say that the police response time was fast for a metropolitan department, let alone for a small community. Quick question, though: in your now or future backwoods home, how long will it take the police to respond once you call them from your remote location? And go back to that true story one more time: if that peaceful rural home had not been armed, would either the husband or the wife have been able to make the call at all?

About the time you read this, two teenage males in a community very close to the one my department serves will go on trial for the murder of a respected middle-aged couple who lived in a somewhat remote home. Neither was able to access a gun to prevent being brutally butchered by assailants armed with combat knives. They thought they lived in a safe place where people didn't need guns, right up until they were hacked to death in a bloodbath that exceeded the "Clockwork Orange" movie.

Owning and responsibly keeping a firearm, and knowing how and when to use it defensively if you must, is your choice. But so is participating in the lifeboat drills when you're on that ocean cruise. The ones who needed the lifeboat were always glad they spent the time preparing. The ones who practiced and didn't need it still achieved peace of mind.

But, as always, the choice is yours.
Δ

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A solar primer: how it works, how it's made, what it costs

By Jeffrey R. Yago, P.E., CEM

Buying a solar power system is not like buying a kitchen appliance or power tool. These, unlike a solar system, have published capacity and performance data that does not change with each hour of day or geographic location. In some respects, it may be like selecting a high end component stereo system which requires separately purchasing the speakers, an amplifier, a CD player, and tape deck. Each of these components must be



Roof-mounted solar PV array attached to house

selected for your specific needs, sound quality, and budget or you will not be pleased with the results.

Before deciding which components are right for your own solar energy system, it is important to understand that there are actually several different types of solar energy systems available, and each has very specific capabilities and limitations. Most solar photovoltaic systems will consist of one or more solar modules, one or more batteries, and a solar charge controller. If the system will be used to supply AC loads, you will also need an inverter to convert the

DC voltage output of the solar array or stored in the battery bank to standard 60 cycle 120-volt AC power.

Solar array

A solar module is a glass sheet, enclosing either individual single-crystal or poly-crystal solar cells, sandwiched between the glass and a waterproof backing material, and edged with an aluminum mounting frame. Some solar modules are constructed using a non-glass glazing, over a metal back with no frame.

Due to the high cost of assembling and wiring individual silicon solar cells into a complete module, some manufacturers are now "plating" the silicon material directly onto the back of the glass in a continuous sheet, with this sheet divided into individual cells after assembly using a laser. This type of solar module is called "amorphous" and it has a lower energy efficiency than the individual silicon cell modules; however, most modules are priced on a similar "cost per watt" basis. This means you will probably pay about the same price for a given watt output array regardless of which module type is used, although the overall roof area covered and the number of individual modules required can vary widely to achieve the same wattage due to different module efficiency.

If you have a limited roof area, the more efficient and larger individual modules will actually reduce mounting hardware costs and require fewer electrical connections. When more than one solar module is used, they are interconnected to create a solar "photovoltaic array." Solar arrays can be ground-mounted on a tilted rack near your home, mounted on the roof

of your home or garage, or pole-mounted in a nearby field.

Pole-mounted arrays can be attached to a fixed position frame on the top of the pole, or the frame can include a mechanism that rotates so the array faces the sun throughout the day. A tracking array will significantly improve solar performance during the summer, but will only slightly improve winter performance. Tracking array mounts are usually not used for residential solar power applications having rooftop arrays due to structural and appearance considerations. The tracking mechanisms also introduce an additional level of complexity and maintenance to an otherwise simple system.

Solar arrays should face south as closely as possible in Northern Hemisphere. However, facing 15 degrees east or west of south will only marginally reduce overall system performance since this is shifting the start and end time the array faces the sun. The tilt mounting angle as referenced to ground can vary from below 30 degrees in southern states to above 60 degrees in northern states. A steeper tilt will improve solar performance during winter months and a



Pole-mounted solar PV array on motorized tracking mount



Ground-mounted solar PV array attached to aluminum frame and concrete piers

shallow tilt will improve summer performance. For a good overall yearly average performance, most installers try to make the tilt angle equal to the site latitude if your electrical loads are fairly constant throughout the year. If you have at least 250 square feet of existing unobstructed south facing roof area, you should be able to install up to 1,500 watts of solar array. Keep in mind that even a small shadow from nearby trees, chimney, or antenna can substantially reduce array output, so select an area free of shadows from 9 a.m. to 3 p.m. which is the period of maximum energy collection for most applications.

Electrically speaking, different brands and sizes of solar modules can be interconnected in the same system; however, you will have a much more attractive array and fewer intercon-

nect wiring problems if you standardize on a specific module and stay with it. This includes future system expansions.

You will also find that buying individual modules in the larger 75 to 100-watt size range will reduce the number of total modules and interconnect wiring needed. Modules in the smaller 20 to 50-watt size range are more expensive on a dollar-per-watt-basis than the larger modules, so your comparison shopping should be based on dollar-per-watt produced, not dollar per module.

Charge controller

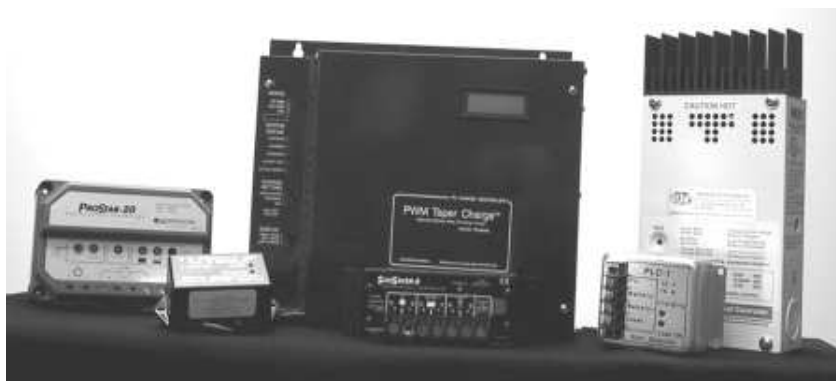
All solar power systems regardless of size will have a solar charge controller to serve as a voltage regulator to control battery charging by the solar array. This device provides sev-

eral safety features including the prevention of overcharging the battery bank during peak sun output, and discharging the battery bank through the solar array at night.

Solar systems intended for supplying solar power directly into the utility grid have their voltage control function built into the inverter and will not have a separate charge controller device. A low cost charge controller is usually a relay device that opens and closes the charging circuit to the battery based on a fixed voltage setpoint on an all or nothing basis. More expensive charge controllers have complex algorithms stored on computer chips to provide a more efficient incremental battery charging cycle. These devices produce constantly changing or pulsed voltage and amperage output to maximize every minute of solar energy collection. Obviously, if you plan to invest several thousand dollars in a solar array, the extra expense for a quality charge controller will more than return its higher cost in more solar energy harvested.

Battery bank

Everyone asks how many batteries do I need and should they be 12, 24, or 48-volt? First, there are some solar power systems that do not use any batteries. Although some inverters can take power from the grid for the purpose of recharging a battery bank, other inverters are designed to only sell back electricity to the utility grid. These systems are less expensive to install since they do not need batteries or a battery storage area, and they do not require battery maintenance or replacement. These systems have inverters that directly convert all of the DC voltage output from the solar array into 120 or 240-volt AC power that is back fed through the electric meter directly into the utility line. In reality, the utility grid becomes the "battery" for these systems and the utility company will require a power



Collection of the most popular brands of solar charge controllers having from 4 to 60 amp charge capacity



Very popular "SunnyBoy" brand grid-tied inverter for direct grid connect solar arrays

meter that can read power flows in both directions so they can calculate a net bill.

Some states still do not require their utilities to offer this "net" billing, so check before buying this type of solar power system. The downside of a non-battery based grid-tied solar array is this system cannot power any of your electrical loads during a utility power outage, brownout, or rolling blackout. This can be somewhat embarrassing for you with your neighbors who think all solar systems can operate without the electric utility and that your home should have power when theirs do not. Using an inverter designed to only transfer solar-generated power back into the utility grid reduces your total yearly electric cost, but does not provide any backup power function. Some months your electric bill may be a cost and some months it may be a credit.

Any solar power system intended to serve as an emergency backup system or designed to provide all electrical power needs for an off-grid home will have a battery bank. The battery bank will consist of one or more individual batteries wired together to match the voltage rating of the inverter and the solar array. Do not even think of using car batteries as these will last only a few weeks under the daily heavy charge/discharge cycle found with all solar systems.

A favorite low cost minimum acceptable battery is the lead acid 6-

volt golf cart battery. Its thick lead plates will withstand this heavy duty cycling, but its lower cost construction rarely lasts over three to four years in this type of service. If you are on a tight initial budget, golf cart batteries will get you started, and they can be replaced when they reach their useful life with heavier batteries like the popular "L-16" size electromotive battery. This battery is the same length and width as a golf cart battery, but it is much taller and heavier. These are very popular for use with larger solar power systems since their high amp hour storage capacity will reduce the number of total batteries you will need, along with fewer battery interconnects and terminals to keep clean.

If your solar-powered home or remote cabin will not be connected to the utility grid, your battery bank needs to be large enough to power your electrical loads for three to four days of cloudy weather. This could require a fairly large number of batteries for most applications. By adding a propane or diesel fueled generator to your system, you can get by with a much smaller battery bank. The generator can be started after one or two sunless days to quickly recharge the batteries which can substantially reduce the space and cost for a large battery bank. If you must locate your batteries in the same space where you will be living, you must either enclose the batteries in a vapor proof enclosure that has exterior vent pipes, or purchase gel cell lead batteries that do not vent gases during charging.

Any liquid electrolyte lead acid battery generates hydrogen gas during charging when it reaches its maximum charging voltage, but will not vent gases while being discharged. Unfortunately, gel cell batteries cost as much as 40 percent more than the same size liquid electrolyte lead acid battery without providing any additional energy storage capacity. You

may find it less expensive to site-build a battery box and use the less expensive liquid electrolyte batteries which are fully recyclable. When planning the location of a battery bank, remember that all batteries are very heavy and should not be exposed to freezing winter temperatures or high summer temperatures. Published battery ratings are always given for 77 degrees F, and all battery capacities will be significantly less when exposed to below 40 degrees F. temperatures.

Inverters

If all of your electrical appliances and lighting will operate directly from a 12-volt battery, you will not need an inverter. However, if you want to use the lower cost and easier to find 120-volt AC lighting and appliances, your system will need an AC inverter. Even if you are on a tight budget, do not skimp on the inverter. To reduce total system costs you can always later add more solar modules and batteries to increase the capacity of your system, but if you initially buy a low cost or undersized inverter, you will soon find it will



Site-built insulated battery box. Note the gasketed lid and rear PVC pipe vent to outside.



Statpower brand modified sine wave inverter for smaller remote cabin and RV applications

need to be replaced with a larger unit. Inverters designed for the marine and RV industry like the Heart Interface and Statpower lines can be used for small off-grid solar powered cabins, but may be too small and lack many features that are desirable for a typical larger residential or farm application.

Most of the smaller and lower cost inverters are “modified square wave” design, meaning their 120-volt AC output voltage only approximates the utility grid’s smooth 60 cycle sine wave by rapidly increasing and decreasing the output voltage in small “steps.” Most power tools, computers, lights, and household appliances will operate satisfactorily on a modified sine wave inverter. However, most

laser printers, photocopiers, and light dimmers not only will not work on a modified sine wave inverter, but can be permanently damaged when connected to these lower cost inverters, and a microwave oven will operate at substantially lower heating capacity. Modified sine wave inverters are typically sold in 400, 800, 1000, 1200, 1500, 1800, and 2500-watt capacity depending on price and manufacturer. These smaller wattage capacity models are available to operate from 12-volt batteries.

If you want to power a microwave oven, well pump, or larger household appliances like clothes washers and refrigerators, while at the same time power room lighting, you need to consider a larger capacity sine wave type inverter like the Trace SW series. These inverters are usually available in 1800, 2500, 3600, 4000, and 5500-watt capacity depending on price and manufacturer. These larger units are not normally designed to operate from a 12-volt battery bank due to the extremely high DC currents and large wire sizes that would be required for capacities above 2500 watts. Most of these larger inverters also include a built-in high capacity battery charger that can recharge the batteries from the utility grid or a generator.

You will need a solar array and battery bank designed to operate at 24-volt or 48-volt DC to use these larger inverters, which keeps wire sizes and costs down but makes it difficult if

you want to also use some DC rated lighting or appliances since most are not made for these higher battery voltages. A high quality inverter in the 4,000-watt range will meet the needs of most small residential applications assuming all space heating and air conditioning equipment, clothes dryer, domestic hot water heater, and cook stove are natural gas or propane-fueled and not connected to the inverter.

Since almost all residential inverters are designed to provide 120-volt AC output, you will not be able to power a standard 240-volt AC well pump without a step-up transformer or a second inverter. Your best bet if you have a well system is to replace your pump with a very high quality “soft start” 120-volt AC well pump and use a large expansion tank to reduce how often the pump cycles on and off. A well pump is a very difficult load for any inverter to power due to the very high starting currents, so do not expect a low cost 1000-watt modified sine wave inverter to power a 2 hp well pump, even if all other lights and appliances are turned off.

Safety and metering

You would be surprised to see how many Internet sites will sell you a very expensive inverter for your self-designed solar power system without indicating that it does not include any safety fuses or circuit breakers that will be needed to connect it to your battery bank, and many buyers may not realize that it is critical to also install these safety devices. In addition, these fuses and circuit breakers must be DC rated which are much more expensive and heavier duty than their 120-volt AC counterparts. An overloaded AC fuse or AC circuit breaker in a DC battery circuit may “trip” when overloaded, but the DC current can easily arc across the lighter duty AC contacts and keep on flowing, which could be a dangerous



Dual 4 kW Trace sine wave inverters to provide 120 and 240-volt AC power from a 48-volt DC battery bank

situation. This is no place to save money.

System sizing

A typical single family residence buys an average of 1,000 kWh hours per month (34 kWh/day) from the local utility company. A solar array in most parts of the United States will collect energy about 5.2 hours per day in the summer, and 4 hours in the winter. Unless you first reduce your electric loads by converting to compact fluorescent lighting and high efficiency appliances to reduce this daily load, you would need a 6 to 7 kW array to power all of these existing loads. (5.5 hrs x 6kW = 33kWh.) When you start shopping for a solar system in this size range, expect to pay over \$25,000 for the complete installation.

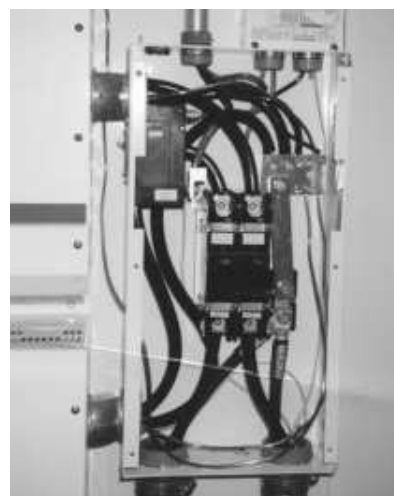
For homes already connected to the utility grid, most homeowners do not have the budget to spend this much

money for what is essentially a backup power system, since the home will still be connected to the utility grid. A much more practical approach is to buy a solar system in the 2 to 3 kW size range, then reconnect all electrical circuits to a main and a backup circuit breaker panel. Have the solar system matched to the critical backup power loads it can safely power, and do without those other non-critical loads during power outages unless they are powered by a generator.

Do it yourself system

If you have the skills and experience to wire a room circuit to your existing circuit breaker panel without burning down your house or electrocuting yourself, and are willing to research the books and articles describing how these systems are safely wired, then head for the Internet or phone book and shop for the individual solar components you need.

You will find very good pricing for some brands of solar components at these Internet sites, but beware! These mail order distributors rarely offer system design assistance or have order takers that know which individual parts are best for your needs. You may end up with boxes of mismatched components and wiring connectors that require lots of additional time and expense to



DC circuit breaker box (cover removed) showing much larger components and wire required to protect inverter (on left) and charge controller (on top)

resolve. Also remember that the wiring of a solar electric system is covered by specific sections in the National Electric Code and these systems must be installed and wired to satisfy your local building inspector.

Even if your system is so far out in the woods that nobody will ever know you are there, these electrical codes are based on years of system safety experience and should be followed even if the system will not be inspected. Most homeowners should hire their local electrician to complete all electrical connections.

In addition, many sine wave inverters and solar charge controllers have an extensive list of adjustable set-points or system programming that are used to "fine tune" the equipment for your specific application. Do not assume all factory default settings will be correct for your system, and do not assume you will be able to maximize these settings just by reading a manual.

Working with a licensed installer

If you feel the system layout and wiring I have described is beyond

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your capability or you just do not have the time, then consider hiring a licensed solar system installer. If you have the budget, their design assistance to match your specific needs to a specific system design will avoid another situation when you say to yourself, "If I had only known..." Since there are only a handful of quality solar equipment brands for each major component, many solar installers represent similar lines of solar power products, but may possess drastically different levels of design expertise and installation knowledge.

It is absolutely critical that you ask for recent installation references and actually call these homeowners. Since the installers will pass along all manufacturer's equipment warranties for the solar modules, inverters, charge controllers, and batteries, your main concern is to work with a solar installer who will still be around for years if you do have a system problem later.

Be forewarned: most experienced solar installers will not touch a problem system that was either poorly installed by a low budget "solar expert" or was purchased mail order by a homeowner who thought they could save lots of money installing the system on their own. All experienced solar installers have had their share of very bad (and costly!) experiences trying to help a stranded homeowner who took this low cost route.

Once you have selected your installer, be sure you are given a detailed written proposal that allows selection of several different array sizes and options to match your budget without sacrificing component quality. You can always add additional solar modules and batteries later to reduce initial system costs, but do not sacrifice system long-term reliability by buying undersized or low quality solar modules or inverters.

When reviewing a proposal for a turnkey solar power system from a solar system installer, be sure the following items are addressed since each item is needed for both safety and operating reliability.

- Evidence that all electrical work will be preformed by individuals licensed and insured to work on electrical systems.
- Safety devices are included in the system design like a DC rated circuit breaker wired between an inverter and battery bank, and between the charge controller and the battery and solar array.
- A catastrophic DC rated fuse installed at any large battery bank if the battery is located at a distance or in a different room from the inverter, even if the inverter has a circuit breaker.
- If your solar array will be mounted on the roof of your home, the National Electric Code requires a DC rated ground fault disconnect in the wiring connecting the solar array to the battery bank and charge controller. This is not required by code on ground or pole-mounted solar arrays.
- Any exposed wiring used to interconnect solar modules must be rated for high temperature, moisture resistance, and sunlight resistance. Module wiring technique must prevent rain

water from entering into the module junction boxes.

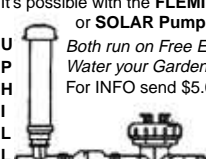
- Although designed to carry high currents, standard welding cable is not approved for battery interconnects and inverter cables at this time, and some local building inspectors have been known to reject these cables. Do not make your own cables.
- Without some form of digital display on your charge controller or a digital amp hour meter for your battery bank, you will not be able to determine if your system is working if it is still connected to the utility grid, and you will not be able to tell how much energy your system has collected. Include some metering equipment.

Final notes

Most solar modules are extremely reliable and 20 to 25-year manufacturer warranties are not unusual; however, geographic location, array mounting, inverter efficiency losses, battery charging efficiency losses, and constantly changing local weather conditions will always reduce total system yearly performance. Solar



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module wattage ratings are listed at a "standard sun" value that would be difficult to achieve unless you were in a desert facing the sun at high noon. Do not be surprised if actual solar energy harvested is only 65% to 75% of the nameplate ratings of the solar modules for any system you install, so be skeptical of unreasonable performance estimates.

Understand that the solar industry is still going through "growing pains" and some installers and equipment manufacturers have far less experience than others. Some of the newer grid-tied inverters that do not require a battery bank have had some reliability and performance problems that are currently being resolved.

If you are waiting for solar prices to drop before buying you may have a very long wait. Quality solar modules are made of the same glass, aluminum, copper, and other raw materials found throughout the construction industry and these materials are not getting cheaper. There are, however, some states and utility companies offering "buy down" rebates or tax credits that can offset some of the cost for the solar modules. These rebates or tax credits may help to reduce your total system cost, but do not buy a solar power system just to get these credits. This sad lesson was learned by many homeowner's buy-

ing low quality and poorly installed solar hot water heaters during the 1970s and 1980s just to quickly take advantage of the federal solar tax credits.

Take your time, decide what system size you can afford, and adjust your appliance or lighting loads to meet this maximum system capacity. It does not make sense to spend thousands of dollars for a few hundred watts of solar power, and then waste it to power low efficiency incandescent lighting or low efficiency appliances. Keep your list of solar powered electrical loads reasonable and as efficient as possible.

(Jeff Yago, author of the book *Achieving Energy Independence—One Step At a Time*, designs and installs turnkey independent energy systems. The book includes easy to apply system design information and includes wiring diagrams for most solar system types. It is available on line at www.pvforyou.com or by calling 804-784-0063 or from BHM [see pg. 92]). Δ

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Living the outlaw life:

Database Doo Dah *by Claire Wolfe*

Nearly 50 percent of people in a worldwide poll said they never lie when filling out online forms. Americans ranked especially high for truthfulness. In another poll, 72 percent claimed similar virtue.

I sure hope they were lying about telling the truth. This world needs more good liars.

No, don't fib to your husband, wife, kid, grandma, best friend, next-door neighbor, or yourself. Let's all be as upstanding as Washington's pre-hatchet cherry tree with each other. But when dealing with *The Masters of the Database*, lie, lie, lie away.

It's what twenty-first century Outlaws do.

I'm not talking about privacy protection. Unless you've been hiding under a rock or getting your jollies monitoring the Echelon system at the No Such Agency, you know more than you ever cared to know about the importance of protecting privacy. Before you tune out (oh, yawn, another article telling me not to post my Social Security number to the alt.filthydatagrabbers newsgroup...), let me explain.

Focusing on privacy protection misses the point. Worse, it perpetuates the problem. The real subject is self-ownership. The real problem is that governments and businesses are stealing what belongs to you. Then they pat you on the head and make smarmy promises to protect what they've snatched—on their terms.

That's like a burglar promising to take really good care of your DVD player and only sell your collection of baseball cards only to well-qualified fences.

Privacy is an expression of a property right (the property being your personal information). It's exactly like my right to this article or Dave Duffy's right to this publication over which he, John Silveira, Annie and Ilene Duffy, Oliver Del Signore, and crew sweat so mightily.

Information about your private doings is your property. Period.

You grant use of it for limited purposes. Individuals can use it pretty freely for lawful non-commercial reasons (as you use *Backwoods Home* by reading it, or loaning it, or starting fires in your wood stove with it). Companies you contract with can use it for agreed-upon commercial purposes (as Dave uses this article by publishing it). But the mere fact that I put this article into Dave's hands doesn't mean that he's magically acquired every right to sell it, re-

sell it, compile it, make a movie out of it, have it translated into Slovenian (or whatever they speak in Slovenia), convert it into Pig Latin, insert the words of other writers, put his own byline on it, and post it to 47 websites. No writer would stand for that. No honorable publisher would try.

Yet thousands of companies and hundreds of government agencies do the equivalent the moment they get their hands on info about your private doings.

"There, there, little person," the legislators and their corporate contributors soothe, chanting the media-mantra of privacy protection. "We'll 'safeguard' your data"—while they go on spying and selling and making sure that any law that gets passed guarantees their access and control—that is, their ownership.

You damn betcha they should safeguard whatever data they are privileged to receive from us. But they need to learn that holding our property is a privilege, a limited grant from us to them.

If these people really respected privacy, they wouldn't need zillions of pages of legis-regulation, complete with federal "privacy czar," new bureaucratic hierarchies, and 1,489 subclauses. One teensy law, like this one by ScanThisNews publisher Scott McDonald, would pretty much cover everything:

It shall be unlawful for any business or government agency to obtain or disclose personal information about any individual without the individual's express, informed consent unless a court order has been issued, upon probable cause, stating the specific item of information to be examined.

Work for it, pray for it, drop millions of printed copies of it from Sopwith Camels over your congressthing's office, folks. But that law—which acknowledges our self-ownership—will pass on the day Bill Clinton enters a monastery.

In the meantime, you are getting—pardon my American—gang-raped sandwich-style between government and corporations.

Take the truly, totally pernicious outfit called ChoicePoint. ChoicePoint—a nominally private concern—maintains detailed dossiers on tens of millions of Americans, indexed under your ("not for identification purposes") federal Social Security number. And I mean detailed. When Richard Smith of the Privacy Foundation

wrote to get the files on his three-member family, ChoicePoint sent him 60 pages.

When Smith asked ChoicePoint what it would take to be removed from their database, they told him flat out, no way. Why was Smith being held data prisoner for life? Because ChoicePoint's "product"—your biography and current activities—would be less valuable to law enforcement if they "allowed" you to escape.

Law enforcement? Yep. The FBI, forbidden by Congress to maintain its own dossiers on Americans, spends millions every year to give 20,000 agents a romp through ChoicePoint databases. The Fibbies just pop over to their very own Web page (www.cpfbi.com—"Search BILLIONS of records from your desktop computer with CPFBI.com"[This website has now been moved and we can no longer find it.—Editor]), where their very own logo stands proudly in partnership with ChoicePoint's. ChoicePoint sells you to all major federal enforcement agencies and hundreds of local enforcers, as well.

Ain't American enterprise grand?

Theoretically, of course, business relationships are voluntary and contractual. Don't like the terms one company offers? Negotiate a better deal or walk away.

Pardon me while I wipe away tears of hysterical laughter. When did you ever contract with ChoicePoint? When did any of us ever tell any business, "Hey, guys, by all means sell everything you know about me. Grab my data without asking. Don't even think about whether you should pay me a fee. Oh yeah, and while you're at it, give my regards to your friends at the ATF and IRS."

"Contractual?" "Voluntary?" Not much. When a 1-800 help line electronically grabs your unlisted, blocked number and puts it straight into a marketing database, you've got next to no say in the matter. When your bank sells your Social Security number and account balance ... well, shrug; it was all your fault for not spotting the opt-out form that looked so much like junk mail. All these outfits are selling you to any willing buyer—including ChoicePoint, which gets its information this way, as well as from government databases.

Walk away? Where do you go? Into a cave? Bank A will treat you like Bank B, which will treat you exactly like Bank C. Who's naive enough to imagine Bank D—committing incest with the same federal regulatory agency as all the rest—will offer a different "contract?"

You owe these people no honor. They are organized criminals. They are thieves. You need to think Outlaw to defend against them.

By now you've read a hundred articles with all the conventional solutions to the inadequately named privacy problem: Contact the credit agencies Experian, TransUnion, and Equifax (which spawned ChoicePoint

back in 1997), be cautious when giving your Social Security number to businesses, pay cash for purchases, don't fill out warranty registration cards, surf the Web anonymously, use mail drop addresses when ordering merchandise, avoid credit cards, etc. etc. etc. You've sent your contributions to groups fighting for new federal privacy protections. You tell companies you object to their trickery and snoopism. You deal with more respectful businesses whenever you have an option.

Fine. All that's good and some of it's very good. Nevertheless, simply by buying a house, renting an apartment, registering to vote, writing a check, requesting product information, or getting a drivers license you're generating saleable records over which you have no control.

So you also need to develop the fine new American habit of egregious, flagrant, flamboyant, joyful, playful, defiant, creative dishonesty.

A liar's home companion

A savvy database programmer named Julia Cochrane once shared her database-duping techniques with me. What follows owes a lot to Julia and her article, "Screwing Up Dr. Spook's Data." Practice these techniques faithfully, and you'll still be able to get any nice little catalogs you may cherish, but you'll help foil anyone who's trying to build up a comprehensive picture of your activities.

The key is not merely to be the best you can be, but to be as many of the best people you can be.

As Julia reminds us, Muffy and Buffy Swenson, twins whose SSNs are one-digit apart, confuse the busy little database cleaners. And if you're Muffy and Buffy today, why not also be Tuffy and Fluffy and Cuffy and Duffy Swenson tomorrow?

And while Buffy's probably female, what if she's sometimes big, rough, tough Buff? Shall the marketers entice her with sports bras or jock straps? It's an expensive dilemma. And how shall government researchers categorize her behavior? Myohmy, she might cause a glitch in the statistical analysis.

If Cuffy lives on Darryl Road and Muffy lives on Darrell Road and Tuffy lives on Daryl Lane, so much the better.

Numbers, too, are pesky things, especially on handwritten forms. Is that a "7" or a "1"? An "8" or a "3?"

Even on Web forms or over the phone, numbers can be tricky devils. If you have digital dyslexia—as I do, no kidding—it's darned near impossible to get through something as long as an SSN, a phone number, or a DD/MM/YY date of birth without transposing a digit.

I should note here that the government doesn't approve of people lying to it, even though it lies like a rug at every opportunity. So I am NOT telling you to lie on any official paperwork. (Do you hear that, Mr. Whssiface who's just

taken over the FBI? I'm not doing that.) But unless the enforcers have special reason to get you ... well, geez, who doesn't make typos? We're only human!

And as genial genius Julia (aka Julie, Juli, Juley, Julee, Juwlee, etc.) points out, "On unofficial forms, you need no excuse at all. ... they shouldn't be collecting the data to snoop on you and it'll serve them right if they muck up their database with it!" If you're selective about telling the truth only where the law requires it, the database warehouses won't know that the "'Pine Tree Road' on your gun form 4473 is absolutely correct and 'Pine Tree Lane' on your purchase of wood chips from the nursery is wrong."

Want something more daring? Exchanging addresses and ownerships with trusted friends is an advanced form of data doodah. I know one man who drives a car registered to and insured by his buddy 100 miles away. The pal likewise drives an auto nominally belonging to my friend. The data divers are muy confused.

Of course, trust and luck are critical to that form of database spoofing. It really might not be a good idea to swap registrations with your neer-do-well cousin who gets loaded and smashes "your" car into a schoolbus.

You can pay to have friends, trusts, or offshore corporations hold all kinds of public-record property—if you're very, very careful whom you choose and how you set up the deal.

A more conservative form of data protection can be gotten from a stationery store for under \$20. Buy yourself an ink pad, then stamp every paper form you ever fill out with a message like this:

Any sale, rental, or other transfer of this data to third parties without my express written authorization is subject to a \$500 charge PER INCIDENT. By entering my information in your database, you agree to these terms.

You can usually find someplace to type the same message in on online forms.

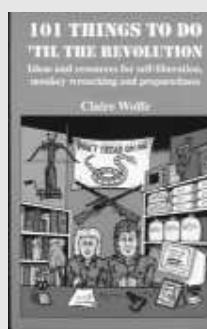
If you do this, be sure to also perform one of your cute database tricks so you'll be able to identify instantly any culprit company. Give yourself a different middle initial matching the name of the company. For Worm World Exotic Pet Supply become John W. Jones; to SeXXXy Serena's Lingerie, be John S. or John X. Jones.

Of course you should follow a number of other guerrilla privacy practices, like calling 1-800 numbers only from someone else's phone (since 1-800 and 1-900 numbers grab your phone number straight through your caller-ID blocking).

Standard disclaimer: No magic bullets

Screwing up data can be a simple self-protective measure as well as a quiet, non-confrontational form of protest. It's a start, but it's no panacea.

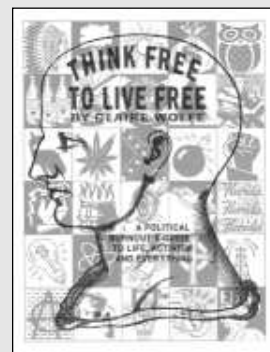
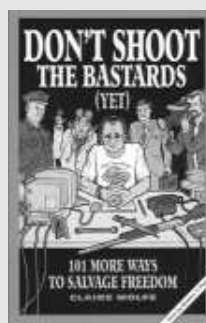
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The weird problem is, no matter how screwed up the data gets, governments and corporations still worship it. And that can hurt you.

The files Richard Smith received from ChoicePoint revealed interesting "facts" such as that 1) Smith was dead and 2) Smith might have served time in prison (because, no surprise, guys named Rick or Ricky Smith had done time, some time). Data from ChoicePoint was famously used in the 2000 elections to ID dozens of Florida voter-wannabes as felons when they were no such thing. Years ago, a study of files from the big three credit reporting agencies revealed that about 35 percent of them had errors.

Yet, increasingly, these databases are god. They—not your real-world relationships or your personal character—are the standard by which you are judged.

This data dependency is sheer superstition—mindless, zealous data worship enforced by a particularly mean group of inquisitors. The flesh, blood, feeling, thinking, rights-possessing person you are is cast on the trash heap, while this imperfect, stolen image of you is worshipped as an idol—and owned as a sect always owns its idols.

Not long ago, in Ontario, Canada, a doctor was caught falsifying patients' government medical records. For enormous profit, he billed the government for non-existent

treatments for real patients. Nasty stuff he claimed to have treated them for: alcoholism, brain tumors, hysteria, anxiety, depression.

Naturally, distressed individuals tried to get their records corrected. And who could deny them? Well, the government of Ontario, for one. The fraudulent claims were “correct” from an accounting point of view—after all, the government had paid out the money—so the victims were forbidden to correct the information—even though the false record of mental illnesses may prevent them from getting a job, buying life insurance, owning firearms, or even making a valid will.

When you think of government privacy protection, consider that. The U.S. Congress, in the name of privacy protection, has already legalized the banks’ previously illicit selling of SSNs and opened our medical records to a universe of snoops.

“I’m from the government. Just enter your Social Security number, date of birth, mother’s maiden name, bar code, DNA pattern, credit record, subcutaneous ID chip reading, tax returns, fingerprints, face scan, current medications, political affiliations, politically incorrect opinions ... and I’m here to help you.”

There are many things we must do to restore both freedom and privacy. Getting creative with data is only one, and a small one at that. But until the day we have the numbers and the will to force state-corporate America, at its peril, to respect individual rights—help yourself.

Turn databases into doodoobases. Δ

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Build a house for less than \$10,000 We did it!

PBy Judy Statezny Ulch

When my husband, Harvey, and I met, we were in our “late forties, early fifties.”

Neither of us had a house any more, as we had been “free spirits” after our divorces and lived in apartments and on a boat. We decided to build a very basic small house (slightly under 1000 square feet) to begin, but to build it in a way that we could add on a room or two if we chose to do so in the future. We chose not to have a mortgage at our ages. A 30-year mortgage added to age 50-ish is an 80-year-old with a mortgage, and we had other ideas. We decided to pay as we built.

Harvey is skilled in carpentry, which is a very important talent to have. I soon learned to operate almost every saw and tool, too, because this had to be a team effort. Harvey has good electrician skills, too, but we both enrolled in a basic electricity class so we would not electrocute ourselves. Fortunately, Harvey is an excellent plumber, too, so we had that part covered. The job was one of love, with a few problems here and there, and it took us 2½ years to complete our house.

It is necessary to have the right tools, including a planer, table saw, band saw, compound miter saw, sander, skill saw, power drills, nail guns, router, etc., in order to make your job as easy as possible. You can rent some of these tools, but it is best to own them, especially if you are planning any more projects in the future. Because good tools are so important for this kind of project, be sure to buy a maintenance agreement on them. We had to have two of our

saws replaced, and because of the agreements both of them were free.

We paid nothing for our house plans, but used plain old graph paper, a ruler, and a pencil to sketch out our plans. We looked through books and

to do it, because we made changes as we went along, and it is difficult to erase ink. We decided that a big kitchen with a large pantry was a must, and we wanted a large comfortable bedroom. Our house has a bath



The front of the Ulch home features \$2 windows in the kitchen and a door with a 50-year-old porthole window.

magazines and took ideas from here and there, and did our own design. Once we decided to build a house, we spent the next couple of weeks laying out our plans and talking and talking and talking. We “walked” through the house many times on paper. We could have purchased house plans, but we had some wacky ideas of what we wanted and none of the plans we saw in books or at the library allowed for our unique ideas. We soon learned that using a pencil was the right way

and a half and an adequate sized living room with a fireplace. It features a three-story tower with a reading room at the top (with 8 windows and four skylights), a spiral staircase, an open staircase, and an indoor garden, as well as floor to ceiling bookcases on one wall in the reading room and one wall in the second floor landing to store all our books. There is an old-fashioned “back porch,” as well as a small deck outside our bedroom. Our house is unique to say the least and

we always laugh that our kids won't fight over who gets the house; they will fight over who has to take it.

We began to look at options other than taking out a big fat mortgage, and using that infamous Yankee Ingenuity we set out to build the nicest house we could with the least amount of money. After we got on a roll, it was a challenge to see how cheap we could get something, how we could use something intended for one thing for something else, and how we could figure out how to do something really cheap.

One of the things we did was to haunt lumberyards and building supply outlets. I am not talking about the big chains. Don't waste your time there because you will be dealing with an employee who has no authority to make deals with you. Go to the small, local, family-owned businesses and talk to the owner or manager. Tell him that you are willing to clean up the storage units or warehouses for payment in discontinued products, slightly damaged materials, and anything free that you can barter for your labor. Tell him that you will take some of the "unsellable" items off his hands for free or for labor or offer to pay a minimal amount of money. Always talk "trading," "bartering," and "free" before mentioning money.

Our first stop was the locally owned and operated lumber company where we asked for their "gray" lumber in exchange for us cleaning up the warehouse. Gray lumber is wood that has been lying around for a while; the bright yellow color has gone and the lumber looks "weathered." Now, you don't want anything that has been out in the rain or directly on the ground because, obviously, it will have rotten spots. But lumber that is kept inside, dry, and is older will turn "gray" after a time. It does not affect the strength or quality of the lumber, just the appearance. Two by fours are inside the walls anyway, so it doesn't matter what color they are. Even if you buy

gray lumber that you intend to use where it will be seen, all you have to do is run it through the planer and the gray will miraculously disappear. The lumber company was glad to get rid of it because it takes up a lot of space and contractors won't buy it. Imagine a contractor coming to someone's house to start building a house and the owner, who is paying big bucks to have his house built, sees "old" lumber. So, it just doesn't sell. We got about 75% of our lumber for our house for less than \$2000 and it took us only two days of work to get it. The company even let us use their truck to haul our treasures home.

The same lumber company sold us slightly damaged insulation. Lots of times the warehouse workers will accidentally rip the paper on the insulation. Most of the time, it is tossed up on a pile and left there. Again, the contractors won't buy it because of its appearance. A few tears in the paper on the insulation won't bother anything. It is inside the walls anyway, so it doesn't really matter. We bought enough insulation for our whole house for \$80. The pile of insulation that had been tossed and left to go to waste in just that company was over 20 feet high; it filled an entire corner of the warehouse and would have been enough for many houses. We just bought what we needed.

We bought all of our kitchen cabinet hardware, including "antique" gold knobs, hinges, and pull handles, all of our bathroom cabinet hardware, and all of the hinges for windows and doors for \$10. Someone had returned an expensive front door handle, including the lock, and they gave it to us because they couldn't sell it with the package ripped open. The company had taken discontinued items to a part of the warehouse and stacked it in piles. It took a couple of hours of going through all of it to find enough of one kind of this, and enough of one kind of that, but it was well worth it. We were also able to buy a custom



The three-story tower on the side of the house has eight \$2 windows and a pair of old farmhouse windows from a flea market.

made double side-by-side kitchen window with storm windows and screens, which someone else had ordered three years before that and not picked up. The people had paid half down and never came back, so we got it for \$100.

After a while, the lumber companies got to know us and the joke was, "Don't throw it away till you check with the Ulches." Once they knew what we were trying to do, they actually let us know that they had items they thought we might want to buy, or have for free. One of the things we got was a special order of ceiling tiles for our kitchen that someone had ordered and never picked up. They charged us \$28. They also let us know when other items were going

on sale, things that we couldn't find anywhere "cheap" or "free."

We wanted oak floors in the kitchen, in the spiral staircase, in the tower, and on both landings. Oak flooring is very expensive, so Harvey went to the local tourist steam engine railroad and asked if he could buy some of the "tomato stakes" that they burn in the antique steam engine to power it. These are pieces of oak, basically scrap wood from saw mills, that are between 1 inch and 4 inches in thickness and width and about 4 feet long. All we had to do was to plane each one on all four sides. Since we like the rustic look, we used very sharp, good quality blades in the planer and we only lightly sanded the flooring. We cut them to $\frac{3}{4}$ inch thickness for flooring and secured the pieces to the sub flooring with liquid nail and finishing nails. We put several coats of polyurethane finish to give it a high gloss, hard finish. The results were wonderful.

In our kitchen, we used some of the pieces for chair rail and wainscot. We made countertops for the bathroom and kitchen out of this cheap commodity, too. Harvey fitted the pieces very tightly and we used the most

interesting pieces for the countertops with the most wood grain showing. After it was fitted and glued down and secured with finishing nails, I sanded it until it was smooth as glass. Then I put 12 coats of the same polyurethane on each of them, sanding between each coat. Harvey built our kitchen island out of this same wood, and we built the kitchen countertop out of the "tomato stakes," too.

We have a spiral staircase that goes from the indoor garden to the landing outside our bedroom. That staircase, too, is made from the "tomato stakes." Harv laid out a pattern on paper on the floor, cut the pieces to fit, and it turned out dramatically beautiful. The newel posts and handrails for the spiral staircase are also made from the same wood. The main pole, which goes from the indoor garden up to the ceiling of the second floor landing, is a cedar tree trunk (free), which we cut from our own property. The spiral staircase is secured to it, all the way down.

The oak is beautiful and had we bought flooring, chair rail, wainscot, countertops, mopboards, etc., ready made, it would have been cost prohibitive. However, our total outlay of

money for enough "tomato stakes" for all of our oak wood products was \$15. (Yes, \$15.) Not only that, all of the scraps, ends, and pieces made very good kindling for our wood burner in the winter.

Our second bathroom is especially fun. We decided to make it an "outhouse." We used rough wood to panel the walls, built a bench-type toilet seat to hide the real flush toilet (which we got for free from a local hotel that was remodeling), built a rough wood cabinet, and instead of having a real sink we bought an old galvanized wash basin and plumbed it to serve as a sink. We are now looking for an old mirror (it must be yellowed and cracked). The bathroom has a real outhouse door on it, complete with a wood block lock and a half moon cut in the door. We will, however, use toilet paper instead of a catalog.

We wanted a stone entranceway in our kitchen so I went to the local stone company and asked them whether they had deals on discontinued items or if they sold things cheap that people didn't pick up. I got enough stone tiles for a 3-foot by 4-foot entranceway for \$13. They were leftovers that the person who had placed the custom order didn't want and they were glad to get it out of their way.

My husband and I are "boat" people and we like anything to do with sailing and water. Harvey salvaged a 50-year-old porthole that he incorporated into a door made from #2 boxcar siding (cheap). We have an incredible front door that cost about \$30 to make. That is where we used the free door handle and lock and some of the hinges we got by rummaging around in the lumber company storeroom.

We have a local radio program where people call in with something to sell, or people who are looking to buy an item, and you get the phone number on the program. I started listening to it by accident one day when



The spiral staircase, the cedar beam, and the \$2 newel posts.



The kitchen counter tops made with the oak "tomato stakes."

it was stormy and it was the only station I could get. A lady was selling window glass and gave her phone number. When we called, we were told that the glass was double paned, insulated glass. They were having a house built and didn't like the windows that were installed so they made the contractor replace them. He was just going to take them and dump them, so she decided to sell them. She said we had to take all of the windows if we took anything so we bought 81 windows for \$2 each. Most of them were 3x4-foot or smaller, but there were two that were 4x6-foot which became our large kitchen windows, one that was a 4-foot circle, and a couple of 6-foot half-moon shaped windows. Needless to say, we had a use for most of them.

Another item I bought on this radio program was a cement mixer with a motor to run it for \$50. That saved us lots of backbreaking mixing of cement.

We have a deck outside our bedroom where we have plants and a chair. The door to the deck cost \$25 and it is a full pane of glass, double insulated. When we found it at a flea market, it was painted a nasty green, but a little paint remover and a bit of scraping and sanding got down to the bare wood. I sanded it, stained it, and it looks just beautiful. The doorknob was one that we got in the \$10 price for the other hardware we bought. We also have a deck that goes out from the bottom of the tower into a Japanese garden. The doors to that are stained glass, French doors which were painted white on the outside and blue on the inside, which we got for \$150 in a junk shop, hidden behind some other old junk. Sometimes you really have to look at things and figure out how they would look with a new finish or even a new use. And you can't be afraid to get your hands dirty, bruised, cut, or stained. (I used to have beautiful fingernails!) You

can save tons of money doing these projects yourselves.

We bought staircase rails for the guardrail in the upstairs landing at a rummage sale for \$2. We bought two wall lights for our upstairs bathroom for \$10 each. You have to dig in the closeout bins at the local big chain building suppliers. We found parquet flooring at a yard sale, still in the packages, which was enough to do our bathroom floor. A lady at a local inn was remodeling and gave us two 220-volt air conditioners just for hauling them away.

Of course, you have to buy some things at the regular prices because you just can't find a deal for everything. However, be sure to tell them you are building a house and they will often give you a contractor's discount. It certainly mounts up and saves you money. Also, let your friends know what you are doing. Lots of times people told us about deals that we wouldn't have known about otherwise. One friend told us that a lumber company about 50 miles from here was cleaning out their storage and giving stuff to whomever got there first. Well, we were there the next morning and got lots of paneling, plywood, and other items.

The best thing to remember is that you can do something much cheaper if you do it yourself and if you keep an open mind whenever you are in any lumberyard, discount store, flea market, or yard sale. Keep your eyes open and always be thinking about what you can use for your project.

When Harv and I decided to build this house without a mortgage, our friends told us we were nuts. It was lots of work and when our friends were socializing on the weekends, we had to discipline ourselves to work on the house. However, it was worth it. We have a beautiful house, no mortgage, and now we can socialize on the weekends. Δ

Reading animal tracks and signs

By Tony Nester

For 99% of human history, the skill of tracking has been used primarily for one thing—sustenance. A skilled tracker kept his family or tribe well fed. Tracking animals probably started early in human history with the ability to look at tracks on the ground and know which ones belonged to



*Mule Deer tracks. Top track is the front, bottom track is the rear.
Taken in Flagstaff, AZ.*

animals that could be eaten and which ones belonged to the animals that ate us. Throughout the millennia, tracking was honed to a fine art and a demanding science, allowing a tracker to decipher not only what animal made the print, but its size and age, where it was headed, whether it was tired, and myriad other details. Although most of us today don't have to rely on tracking for self-preservation, we can still benefit from understanding this ancient skill and learn more about the wildlife living in our midsts. Tracking is a skill of visual acuity that anyone, with patience and practice, can acquire. It may seem overwhelming when you find an

array of different shaped tracks on the trail but there is a set of principles that you can use which will make tracking an enjoyable skill for interpreting the hidden messages written across the land.

Where to look for tracks

Animals live closer to us than we think and you don't have to live in or near a wilderness area to see their tracks. Some of the best tracks I have seen were in the soft dirt of a garden in downtown Detroit. Look around riverbanks, hiking trails, beaches, or dirt roads. You can even rake a patch of ground in your backyard, place a stick with peanut butter in the middle of it, and come back the next morning to see whose tracks are present. Let's look at some of the basic principles that you can utilize to distinguish the different types of animal tracks.

1. Count the toes and claws

- Cat family (cougars, bobcats, house cats): four toes in front foot and four in the rear, no claws.
- Dog family (wolves, coyotes, foxes, domestic dogs): four toes



*Mountain lion and domestic dog tracks. Cat tracks (left of pen) have a larger heel pad with three lobes on the bottom. Also note lack of claws in the cat print compared with the dog.
Sedona, AZ.*



*Mouse hopping in snow. Notice tail dragging and that the mouse didn't break through the snow unlike a much heavier squirrel would have.
Flagstaff, AZ.*

in front and four in the rear, claws.

- Bear family (grizzly, black, polar): five toes in front and five in the rear, claws.
- Weasel family (skunks, otters, mink, badger, ermine): five toes in front and five in the rear, claws.
- Raccoons/Ringtails/Coatimundis: five toes in front and five in the rear, claws.



Raccoon tracks showing five human-like toes in front and five toes in the rear. Rear foot is larger. Warren, MI.

- Rodent family (mice, squirrel, beaver, porcupine): four toes in front and five in the rear, claws.
- Rabbits/Hares: four toes in front and four in the rear, no claws.
- Ungulates (deer, antelope, elk, moose, cow): hooved prints.



Coyote chasing a mule deer. Notice the distance between the feet and the "blown-out" dirt, indicating a high-speed chase. Flagstaff, AZ.

Once you have determined the number of toes, then look closely for claw marks. These will correspond with the number of toes present but be aware that the cat family rarely shows any claw marks since the claws are kept retracted. Also, smaller animals such as mice, chipmunks, or mink might have very faint claw marks so get down on your knees and search for any details. Avoid the temptation of looking at a single print and trying to decipher the whole story. Gather as many clues from the trail and surrounding environment as possible before making your deduction. I once came upon a set of tracks on a muddy road that initially looked like a stubby-toed raccoon. Every track looked different, with one resembling a bobcat and another a ringtail, until I remembered that the ground had been freezing and thawing that week. This had caused the tracks to expand and become distorted. By looking closely at enough prints, I could see that the tracks were from a bobcat and not a shape-shifting extraterrestrial.

2. Look at stride & straddle

Stride and straddle can be helpful tools when the tracks are not clear enough to distinguish toes or claws, particularly when tracking on a beach or deep snow. Stride is the distance from one set of an animal's tracks to the next set. This is basically the hip to shoulder distance of an animal and it is measured from a right, front paw to a right, rear paw. Stride can be especially useful when trying to determine animals' tracks that are similar, such as foxes and coyotes.

Use a tape measure and gather as many stride measurements as possible and then take an average. Keep notes of your findings and then compare these figures with a field guide (see the Resource listing at the end). Other than using a tape measure, you can cut a few notches in a straight stick and use this for measuring in the

field. The function of stride (and straddle) is to get a visual impression of that animal's size relative to other animals. For instance, an adult mountain lion which weighs 130 pounds is going to have a longer walking stride than a bobcat that weighs 30 pounds.

Straddle is the "trail width" and is measured from the outside of a right track to the outside of a left track. Straddle, like stride, can be useful in narrowing down animals with similar tracks, such as those found in the rodent family.



Comparison of Elk (left), Whitetail Deer (middle), and Javelina (right) tracks. Flagstaff, AZ.

3. Look for other signs

Tracking is a skill that involves looking for disturbances across the landscape. Try to develop an eye for things that seem out of place or unusual. Each animal is intimately connected to the environment it travels through and there is a reason that they are trotting down the trail in front of you, be it food, territory, or offspring. Tracks represent only 50% of what an animal leaves behind. There are many other clues such as gnawed branches, dens, scat (animal droppings), or uprooted logs, to name a few. These signs, along with an animal's tracks, can lend tremendous insight into a creature's activities and habits.

4. Gather all of the clues

Keep in mind other factors such as geographic location, habitat, and time of year. You aren't likely to see lynx tracks in Florida but you may up in Montana. Take into account the "geographic storyboard" of where you are



Wild Turkey tracks. Ground-dwelling birds like turkeys, crows, pigeons, and grouse walk with one foot in front of the other unlike tree-dwelling birds like sparrows and juncos which hop and have tracks that are side-by-side. Flagstaff, AZ.

in North America. The habitat is also important. Are you in a swamp, desert, forest, or streamside environment? Some animals like otters and beaver are always within reach of water, while a kit-fox is found only in desert habitats. Lastly, what time of year is it? Creatures like chipmunk, for instance, become sedentary and rarely venture out in the winter. Knowing this can help to eliminate their tracks on a winter hike.

In conclusion, there is a wealth of animal tracks and signs outside of your front door right now, waiting for you to decipher them. When you find a track, gather as many of the above clues as you can and then make your best deduction. With practice, your deductions will get more accurate and you will be on your way to reconnecting with an ancient skill that is a part of our human heritage.

Resources:

Halfpenny, James, *A Field Guide To Mammal Tracking in North America*, 1986



Abert squirrel tracks showing the front feet with four toes (bottom) and five toes in the rear. Typical hopping pattern, like rabbits, where the hind feet exceed the front feet. Flagstaff, AZ.

Murie, Olaus, *A Field Guide to Animal Tracks*, Peterson Field Guides, 1954

Rezendes, Paul, *Tracking & the Art of Seeing*, 1992.

(Tony Nester teaches courses in Mammal Tracking & Primitive Skills in Flagstaff, Arizona. For information, call 520/774-7522 or email: anester@attglobal.net) Δ



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the *gee-whiz!* page

Europe and Asia continents?

Why are Europe and Asia considered different continents when anyone who looks at a map can see they are part of the same landmass and that Europe is nothing more than a bunch of peninsulas sticking off the butt end of Asia?

This separation of the continents came about because of the ancient Greeks. The Greeks saw themselves at the center of the world and they divided the rest of the world into three continents: Europe, Asia, and Africa. (No one in the Old World knew then that Australia, Antarctica, or North or South America even existed.)

It is because we have carried this ancient convention over into modern times that we now see Europe and Asia as distinct continents.



The energy released by an average hurricane is equivalent to six Nagasaki-type atomic bombs going off every second.

The lingua franca of Aviation

A commercial airliner from Russia's national airline, Aeroflot, is landing at Sheremetyevo International Airport, the main airport servicing international flights into and out of Moscow, Russia. The pilot is Russian, the air traffic controller guiding him in is Russian, and they are well inside Russian airspace. As the air traffic controller and the pilot speak, what language are they conversing in?

It would seem as if they should be speaking Russian, or at least one of the dozens of other languages spoken in what is the largest country in the world, but they're not. They're speaking in English. Well, maybe not quite English, but "air traffic control English" or "Aviation English," a somewhat abbreviated form of English established after the Second World War by the International Civil Aviation Organization. It has a limited vocabulary of everyday English words that are necessary to flying as well as some technical terms.

Why English? If you think about it a moment, it begins to make sense. Sheremetyevo is an international airport and, while the Aeroflot plane is landing, there may be Alitalia (Italy), Garuda Indonesia (Indonesia), Lufthansa (Germany), Cathay (Hong Kong), and others waiting their turns to take off or land, and everyone has to know what's going on. So, in the commercial aviation world, a com-

mon language had to be settled upon and that language is English. Or, as I said, Aviation English, but English nonetheless.

English was chosen, in part, because there is more air traffic in the English speaking world than any other part of the world. But it also came about because English has become the lingua franca of the business and scientific world. So pilots and air traffic controllers all over the world, regardless of their country, must speak enough Aviation English to participate in international flying. And pilots flying into and out of airports in Asia, Africa, and even South America, along with the air traffic controllers who guide them, must all speak this form of English—even French pilots who, until recently, insisted on speaking French once they were in French airspace, to the chagrin of their fellow pilots from all over the world.

And what exactly does lingua franca mean? Literally, it means "language of the Franks." It was an "international language" that once existed and was spoken in the ports that border the Mediterranean Sea. It was mostly Italian, but it was also mixed with French, Spanish, Greek, and even Arabic. It was the language of commerce. Today, there exist languages that are similar. One is Pidgin, a language that is a mixture of English and several Asian languages. It is used as a lingua franca by people who do not speak a common language in parts of the Orient.

THE IRREVERENT JOKE PAGE

(Believing it is important for people to be able to laugh at themselves, this is a continuing feature in *Backwoods Home Magazine*. We invite readers to submit any jokes you'd like to share to *BHM*, P.O. Box 712, Gold Beach, OR 97444. There is no payment for jokes used.)

An elderly man in Chicago calls his son in New York and says, "I hate to ruin your day, but I have to tell you that your mother and I are divorcing; 45 years of misery is more than I can stand."

"Dad, what are you talking about?" the son screams.

"We can't stand the sight of each other any longer," the old man says. "We're sick of each other, and I'm sick of talking about this, so you call your sister in Los Angeles and you tell her."

Frantic, the son calls his sister. She explodes on the phone. "Baloney. We're not letting them get divorced," she screams, "we're going to take care of this."

She calls Chicago immediately, and screams at her father, "You are NOT getting divorced. Don't do a single thing until I get there. I'm calling my brother back, and we'll both be there tomorrow. Until then, don't do a thing, DO YOU HEAR ME?" and she hangs up.

The old man hangs up his phone, turns to his wife, and says, "Okay, they're coming for Thanksgiving and they're paying their own fares...now what do we do for Christmas?"

Jones goes to see his supervisor in the front office.

"Boss," he says, "we're doing some heavy house-cleaning at home tomorrow, and my wife needs me to help with the attic and the garage, moving and hauling stuff."

"We're short-handed, Jones," the boss replies. "I can't give you the day off."

"Thanks boss," says Jones, "I knew I could count on you."

A priest is walking down the street one day when he sees a small boy trying to press a doorbell on a house across the street. But the doorbell is just out of his reach.

He watches the boy's efforts for some time, until finally he crosses the street, walks up behind the little fellow and, placing his hand kindly on the child's shoulder leans over and gives the doorbell a ring.

Crouching down to the child's level, the priest smiles benevolently and asks, "And now what, my little man?"

To which the boy turns and yells, "NOW WE RUN!"

A blonde, a brunette and a redhead went into a bar and asked the bartender for some drinks:

Brunette: "I'll have a B and C."

Bartender: "What is a B and C?"

Brunette: "Bourbon and Coke."

Redhead: "And, I'll have a G and T."

Bartender: "What's a G and T?"

Redhead: "Gin and tonic."

Blonde: "I'll have a 15."

Bartender: "What's a 15?"

Blonde: "7 and 7"

Three hermits move into a cave together and for the first seven years they don't speak to each other. Then one morning a horse runs by the mouth of the cave.

Seven years later the first hermit says, "That was a pretty white horse that ran by."

Seven more years go by and the second hermit says, "That horse wasn't white, he was black."

Yet another seven years go by and the third hermit starts packing his bags. The other two look at him and he says, "If all you two are going to do is argue, then I'm leaving."

Yo' mama's so ugly, she tried to take a beauty nap and slipped into a coma.

Dear Abby:

My husband is a lying cheat. He tells me he loves me, but he has cheated our entire marriage. He is a good provider and has many friends and supporters. They know he is a lying cheat, but they just avoid the issue. He is a hard worker but many of his co-workers are leery of him. Every time he gets caught, he denies it all. Then he admits that he was wrong and begs me to forgive him. This has been going on for so long, everyone knows he is a cheat. I don't know what to do.

***Signed,
Frustrated***

Dear Frustrated:

You should dump him. Now that you are finally a New York Senator, you don't need him anymore.

Three sisters, ages 92, 94, and 96 live in a house together. One night the 96-year-old draws a bath. She puts her foot in and pauses. She yells down the stairs, "Was I getting in or out of the bath?" The 94 year old yells back, "I don't know. I'll come up and see." She starts up the stairs and pauses. "Was I going up the stairs or down?" The 92 year old is sitting at the kitchen table having tea listening to her sisters. She shakes her head and says, "I sure hope I never get that forgetful." She knocks on wood for good measure. She then yells, "I'll come up and help both of you as soon as I see who's at the door."

Jack and his buddy, Bob, went skiing. They loaded up Jack's SUV and headed north. After a few hours, they got caught in a terrible blizzard and pulled into the driveway of a farm owned by a very rich widow. They went to the door and asked the attractive lady who answered the door if they could spend the night.

"Oh, it's such terrible weather out there and I have this huge house all to myself. But I'm recently widowed," she said, "and I'm afraid of what the neighbors will say if I let two attractive young men stay in my house."

"Don't worry," Jack said. "We'll be happy if you just let us sleep in your barn. And if the weather breaks, we'll be gone at first light."

The lady agreed, and the two men found their way to the barn and settled in for the night. Come morning, the weather had cleared, and they left and had a great skiing weekend.

But nine months later Jack got a letter from an attorney. It took him a few minutes to figure it out, but he finally determined that it was from the attorney of the attractive widow in whose barn he and Bob had stayed.

So he drove to see his friend Bob and asked, "Bob, remember nine months ago that good-looking widow from the farm we stayed at on our ski holiday up north?"

"Yes, I do."

"Did you get up in the middle of the night and go up to the house and pay her a visit?"

"Yes," Bob said, a little embarrassed about being found out. "I have to admit that I did."

"And did you stay the night with her?"

"Yes."

"And did you happen to use my name instead of your own?"

Bob's face turned red and he said, "Yeah, sorry, buddy. I'm afraid I did. Why do you ask?"

"She just died and left me everything."

A man goes to his doctor for a complete checkup. He hasn't been feeling well and wants to find out if he's ill. After the checkup, the doctor comes out with the results of the examination.

"I'm afraid I have some bad news. You're dying and you don't have much time," the doctor says.

"Oh no, that's terrible! How long have I got?" the man asks.

"10..." says the doctor.

"10? 10 what? 10 months? 10 weeks? 10 what?!" he asks desperately.

"... 9... 8... 7..."

When I was younger, I hated going to weddings ... it seemed that all of my aunts and the grandmotherly types used to come up to me, poking me in the ribs and cackling, telling me, "You're next. You're next."

They stopped that stuff after I started doing the same thing to them at funerals.

"Honey, it's just too hot to wear clothes today," Jack said to his wife as he stepped out of the shower. "What do you think the neighbors would think if I mowed the lawn like this?"

"They'd probably think I married you for your money," she replied.

A firefighter is working on the engine outside the station when he notices a little boy next door in a little red wagon with little ladders hung off the side and a garden hose tightly coiled in the middle. The boy is wearing a firefighter's helmet and has the wagon tied to a dog and a cat. The firefighter says, "Hey little partner, what are you doing?"

The little boy says, "I'm pretending to be a fireman and this is my firetruck."

The firefighter walks over to take a closer look. "That sure is a nice fire truck," the firefighter says with admiration.

"Thanks mister," the boy says. The firefighter looks a little closer and notices the boy has tied the wagon to the dog's collar and to the cat's testicles.

"Little partner," the firefighter says, "I don't want to tell you how to run your fire truck, but if you were to tie that rope around the cat's collar, I think you could go faster."

The little boy says, "You're probably right, mister, but then I wouldn't have a siren."

THE COMING AMERICAN DICTATORSHIP

PART VII

How the government wants to take control of the Internet and why a professional military is a danger to us all

By John Silveira

(This is the seventh of eight installments of a series on the erosion of our constitutional government. The first seven parts are available on CD-ROM. See page 89.)

Dave, Mac, and I arrived at a little restaurant in Brookings, Oregon, a city of some 5,000 people that lies about 30 miles south of Gold Beach on the southern Oregon coast where *Backwoods Home Magazine* is located.

Dave, of course, is Dave Duffy, the publisher of *Backwoods Home Magazine*, and Mac is O.E. MacDougal, our poker playing friend from southern California.

Since morning we'd been talking about the loss of freedoms in this country. Mac sounded pretty pessimistic. What he had been saying about the state of America since early that morning seemed pretty bad.

The waitress seated us and gave us menus, and now we sat poring over them.

Knowing Dave had eaten here before, I asked, "What's good?"

"All I've ever had here are the fish and chips—but they're great," he replied.

"That's all you eat here?" I asked. "Sounds to me like you're in a rut."

Mac put his menu down and said, "Fish and chips sounds good to me."

Dave still looked at the menu as if something else might catch his eye. But finally he said, "Yeah, I'm in a rut. I'll have the fish and chips, too." He put his menu on the table.

More on juries

I stared at my menu a while longer. I wondered what else might catch my

eye. Then I heard Dave say to Mac: "On the way down here, you talked about the danger of letting the state, both the prosecution and the courts themselves—both of which are arms of the state—stack juries using *voir dire*. What about civil cases? Does the same thing apply there?"

"Absolutely. In civil cases, where lots of money is often at stake, lawyers want to get anyone who can think and anyone who's reasonable out of the jury box. They want emotional people whom they can lead. They want people who have or believe in a 'victim mentality'. And they absolutely don't want jurors who believe in individual responsibility.

"The result is that the average American has practically no representation in jury boxes in either criminal or civil cases.

"By literally handpicking jurors in civil cases, lawyers have left the rest of us baffled as to how they manage to get settlements that run into the hundreds of million of dollars and, more recently, into the billions of dollars. But it is through carefully crafted efforts to get only the most susceptible people on juries that the tobacco companies wind up with those judgments. And, of course, the cost of those judgments are almost always passed on to the consumer."

"But we need civil suits for when corporations are culpable," I said.

"Oh, I agree with you," Mac said. "But what I'm saying is, what's wrong with having the juries in civil cases represent a cross-section of the public. Is someone of the mind it would make the verdicts less fair?"



John Silveira

Stacking juries does not work in the public's interest."

"I don't think it's intended to be in the public's interest," Dave said.

Mac didn't say anything, but I could tell he agreed.

The solution

Dave continued. "So, I would imagine that the solution is to cut *voir dire* out of the courtroom, in both criminal and civil cases, and let the average citizen sit in the jury box and make these decisions, and not allow them to fall into the hands of the narrow-minded and susceptible juries hand-picked by lawyers."

"I couldn't have said it better," Mac said. "Juries are supposed to be there to oversee the ways in which the laws are applied. It's supposed to be for all of us, not just the defendants and their lawyers. That has been the intent

of juries since the *Magna Carta*. But today lawyers have found a way around it."

The Internet

We ate in silence for a while until Dave asked, "What were we actually going to talk about when we first arrived here? Oh, yeah, it was going to be about the Internet and the danger of government intrusion into it."

"What I said," Mac began, "was that the Internet may be the greatest freedom tool since the invention of the printing press. And I also said it was safe to bet that there are going to be attempts by the government to control it."

"Why didn't they just start out with controls?" Dave asked.

"Because the Internet and the Worldwide Web grew so fast that government was caught by surprise. There's a lot of inertia in government. Imposing controls now is going to be difficult. People know what a Web that is free from government control is like, and they like it. It's not going to be easy for the government to impose themselves upon it. The way things are happening now is nothing like it was a hundred years ago with automobiles."

"What do you mean?" I asked. "What do automobiles have to do with it?"

"Well, a hundred years ago automobiles were just playthings of the rich. The multitudes didn't own them so they didn't care when bureaucrats and politicians thought to cash in on them by taxing them. In contrast, at that time many people owned horses and carriages for transportation. Had the government tried to register and regulate them the way they did cars and trucks, there would have been a revolt. So the taxes and other controls were instituted early. By the time their use became widespread, people getting their first cars had no memory of what it was like when motor vehi-

cle ownership was unencumbered by licensing and registration.

"Contrast that with the Internet. It grew fast, many people got on it early, and everyone has become accustomed to the freedom it's given them. It's now going to be difficult for the government to control it.

"But those who are looking to make their bailiwick the control of the Internet are always looking for inroads, they're always looking for something that will provide an excuse to control it. One of the things they've tried to do is create hysteria. They scream about porn, Internet casinos, terrorists, the handicapped and disabled, class warfare, the need to collect e-taxes on e-businesses, etc., etc., in the hopes that eventually some of those things will catch on."

"Disabilities?" Dave asked. "How are people using disabilities to control the Internet?"

"People have testified before Congress that the federal government should monitor and control the Worldwide Web in the name of the disabled. They have claimed everything from the need that the blind have access to the Web by mandating all Web pages have sound for their text to insisting on color schemes so that the color blind are not discriminated against."

"You're kidding," Dave asked.

"No I'm not. And what this could lead to is licensing of Internet sites, along with greater costs to put a site on line, and the disappearance of individual Internet sites unless they are government compliant."

"Regulation of the Internet," Dave said.

"Yes. But the problem, from the point of view of today's would-be regulators, is that the Web has grown so fast that there would be a lot of resistance to instituting much of this. But believe me when I say this: there are bureaucrats and politicians who are always trying to get control of it.

And there are always citizens who are cheering them on."

I said, "I saw this thing that the Postal Service wants to charge five cents an e-mail to make up for lost revenue and..."

"That was a hoax that started in Canada," Mac said.

I stopped in surprise. "It was?"

"Yeah, it was," Dave said. "I checked it out when I first got an e-mail like that a couple of years ago."

"It's taken on the status of urban legend," Mac said.

I was still a little too surprised to speak.

"But it points to a good thing," Mac said, "because, when that e-mail was circulating, Congressmen were inundated with letters and e-mails protesting the postal charges. And when we get to your question, 'What's the solution,' that *is* the solution, namely, people have got to protest these intrusions.

"Furthermore, there are more important intrusions already happening and we should absolutely be protesting them before they become institutionalized. Though it may be too late, already."

"What are you talking about?" Dave asked.

"*Echelon* and *Carnivore*."

"What are those?" I asked.

"They are surveillance efforts on the part of government. Our government.

"*Echelon* is a project—actually a spy system—that has been around for quite some time. It's probably the most powerful intelligence gathering tool in the world. It was designed and is run by the National Security Agency, or NSA as it's called, and one of the problems with it is that the NSA was established by a presidential directive and is not subject to congressional review."

"This goes back to *Executive Orders* and how the President can act on pretty much anything simply by declaring an 'emergency.'" Dave said.

Mac nodded. "But unlike other intelligence gathering operations that are directed against foreign military targets, *Echelon* is directed against non-military targets that include not only other governments but businesses, organizations, and individuals in every country in the world including this one. It's an extreme threat to the privacy of people all over the world. Or, more to the point, it's an extreme threat to *our* privacy."

"How does this *Echelon* work?" Dave asked.

"It captures most, if not all, of the incredible volume of satellite, microwave, cellular, and fiber-optic traffic worldwide."

"What good can all that data be," I asked. "It seems like it would be impossible to sort through it all."

"Well, after gathering it, the next step they take is to use computers to filter, process, sort, and flag it."

"What are they looking for?" Dave asked.

"Who knows? Anything? Everything? But the real concern is that not only do very few people seem to be aware of its existence, but apparently there is no oversight by the courts, the Congress, or us—the people. We have no choices and we have no say. And at this point I don't think anyone outside of NSA even knows whether *Echelon* is being used illegally to spy on private citizens."

"The other threat is called *Carnivore*. It's an FBI project. It's a combination of hardware and software your Internet Service Provider—or ISP—must allow the FBI to install on their site. It's used to read all incoming and outgoing e-mails, and it notes who the sender and recipients are, what the message's subject is about, and what's in the body of the message. It also monitors the web-surfing and downloading habits of *all* of the ISP's customers. It even monitors instant messaging, newsgroups..." He paused. "You name it, it will monitor it."

"Where'd they get the name *Carnivore*?" I asked.

"It was a name the FBI now regrets because of its predatory connotation. But they came up with it because of what they considered its ability to get at the 'meat' of whatever they considered to be suspicious communications or Internet activity."

"The danger is that both of these efforts are in direct conflict with what the *Constitution* allows the federal government to do, and they are a direct violation of our rights as reflected in the *Bill of Rights*, including our right to be protected against warrantless searches."

The solutions

"So, along with e-mailing your Congressman, when you ask me about a solution to this problem, add that you should talk with your ISP and find out whether or not they have allowed the FBI to install *Carnivore* on their system, and yell like hell if they have or if they're considering it."

"I've heard some people talk about using encryption devices when sending e-mail. How do you feel about that?" Dave asked.

"The government has been opposed to individuals having access to good encryption programs and have said that if you're going to use one, they want to make it a law that you must give them the 'key' to it. The key

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means a way for them to read your messages even though they're encrypted. They don't mind you having privacy, they just don't want you to have it from them."

"Do you use an encryption program when you're on the Net?" I asked.

Mac smiled. "No, but I have looked into it. And anyone interested in finding out about them can use one of the search engines on the Web and look for PGP, which stands for Pretty Good Privacy, and find out all about them."

"Is there something better than 'pretty good privacy'?" I asked. "It sounds to me as though you'd want something called *really* good privacy."

"The use of the phrase 'pretty good' is an understatement. It's actually the the most secure and most convenient privacy you can get for use on the Web."

Washington's warning against foreign entanglements

Observe good faith and justice towards all nations; cultivate peace and harmony with all...The nation which indulges towards another a habitual hatred or a habitual fondness is in some degree a slave. It is a slave to its animosity or to its affection, either of which is sufficient to lead it astray from its duty and its interest. Antipathy in one nation against another disposes each more readily to offer insult and injury, to lay hold of slight causes of umbrage, and to be haughty and intractable, when accidental or trifling occasions of dispute occur. Hence, frequent collisions, obstinate, envenomed, and bloody contests. The nation, prompted by ill-will and resentment, sometimes impels to war the government, contrary to the best calculations of policy. The government sometimes participates in the national propensity, and adopts through passion what reason would reject; at other times it makes the animosity of the nation subservient to projects of hostility instigated by pride, ambition, and other sinister and pernicious motives. The peace often, sometimes perhaps the liberty, of nations, has been the victim...It is our true policy to steer clear of permanent alliances with any portion of the foreign world...

George Washington
Farewell Address
September 19, 1796

"How big do you think the dangers are of the government controlling the Internet or the Web?" Dave asked.

"Actually, users of the Internet and the Web have been spectacularly successful in resisting government control of it...so far. The Internet and the Web may be the last great bastion of freedom. Even the Chinese, those great squelchers of freedom, have found the Web difficult and cumbersome to control and, in the end, they may discover that even they are incapable of managing it."

"But they won't stop trying, will they," Dave said.

"No, they won't," Mac said. "One of the sad things is that every time there's a crisis, politicians, bureaucrats, and self-appointed demigods jump up to claim we have too many freedoms or that some freedoms must be sacrificed to ensure security. Others challenge these views and point out that not only are our freedoms worth defending, freedom itself is often the solution to a problem."

"For instance, a well-armed populace would stop the rampages of psychopaths or the malevolent intentions of these international terrorists that

concern us so much. But the media is all too often statist and it voices only the opinions those who want to squelch freedom. And all too often, the only hearing they give to those who advocate freedom is when they interview certified kooks. They all too willingly ignore voices of reason that champion freedom."

"Who do you think they should interview to counter government spokesmen who say we have to give up some of our freedoms to obtain security?" Dave asked.

"The Libertarian Party, *Jews for the Preservation of Firearms Ownership*, Vin Suprynowicz, Claire Wolfe...there are a bunch of others."

"It used to be that these voices were hard to find. But because of the Internet, nowadays they can be heard. The Internet may be the single biggest weapon for freedom we have today."

"There was a time when the press viewed itself as the defender of freedom, but today the Internet has replaced the press as the source of the voices of dissent."

Dave said, "And so you're saying that the solution is vigilance on the part of Internet users..."

"And use the 'send' button on your e-mailer to tell your Congressman to stay away from the Internet," I added.

"And seriously consider using one of the PGP encryption programs," Dave added.

"I can't imagine any other solutions," Mac said. "If we want a free Internet, we have got to keep it free ourselves."

Large standing armies

The waitress brought us our lunches.

"Have you got any Tabasco Sauce?" Mac asked. "And extra tartar sauce?" he called as she walked away.

We picked at our fries and I noticed Mac was eating his with the tartar sauce.

Looking up at me he said, "I like them this way better than I do eating them with ketchup."

I tried a few with tartar sauce. I liked them better that way.

The waitress returned with the hot sauce and, one by one, we slathered it on our fish.

"What else do you see as a threat to our freedoms?" Dave asked Mac between bites.

"There are a lot of things, some more important than others, but one of the biggest problems that confronts Americans right now is the drastic change we've seen in our military in the last 60 years. It's a change that doesn't seem to concern too many of us, but it should."

"What are you talking about?" Dave asked.

"The military is just too big."

"Too big?" Dave asked.

"Yes. Traditionally there was never a large standing peacetime army in this country until 1945..."

"There wasn't?" I interrupted.

"No."

"Why not?"

"Our Founding Fathers didn't want a large standing army, especially a large *professional* standing army. And until the 1940s most Americans didn't want any large army hanging around in times of peace. But things have changed since World War II. We've had a large standing army ever since then, and we've gotten used to it just like it's always been here."

"But how did the Founding Fathers think we were supposed to defend ourselves?" I asked.

"In times of war they knew there wouldn't be a problem raising an army from the citizenry and, as it's turned out, they were right."

"But what was their reasons for not wanting a large army all the time?" I persisted.

"They feared them."

"They did?" Dave asked. "Why?"

"They were educated men and they knew, historically, that large standing armies don't *stand* around very long. They get used. They're sent off on foreign adventures that drain the treasury.

"Second, they saw that large standing armies have often become the accomplices of tyrants. Since the dawn of recorded history we know governments have used them as tools of suppression against the populations of their own countries.

"They also had the benefit of seeing what was happening in Europe in their own time, the late 1700s. They saw there were large armies all over Europe and those armies were the enemies of freedom.

"And, finally, they saw how their own government, the government of England—and you've got to remember that, until the Revolutionary War, our Founding Fathers were Englishmen—turned the English army against them over tax matters."

"I still think we need an army," I said.

"I didn't say we don't," Mac replied. "But the plan of our Founding Fathers was that this coun-

try should keep a navy intact at all times—and today they would no doubt also include an air force—along with a small core of professional soldiers, and the militia. And here I'm using the word *militia* in the way it's used in the Second Amendment, meaning the body of citizenry who can be called to arms, not the National Guard or some other professional organization."

"But that was then. Times have changed," I said.

"Times haven't changed that much," Mac responded. "Our Founding Fathers aren't the only people to feel this way. Even in our own lifetimes, there have been warnings about a permanent massive military establishment in peacetime. Dwight Eisenhower, the man who led the Allied forces during World War II and then became President in 1953, worried about what was happening with the increased growth in the military and its marriage to corporate America *after* World War II."

"He did?" Dave asked.

"Yes. Three days before he left office, in 1961, he gave his *Farewell Address*. In it he warned Americans against the military-industrial complex. He didn't like what was happening there. And keep in mind he wasn't some over-the-hill hippy or peacenik. Ike had made the military



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his career. He was there between the two World Wars when there was only a small core of professionals in the army. Then he watched as, in World War II, this country raised an army from the citizenry that was the most formidable military machine ever to wage a war. So he knew what it was like both before we inflated our defense establishment and when it became monolithic, as it is today. And it worried him."

"So what did he say in his speech?" Dave asked.

"He warned us about the dangers of a large permanent military establishment, in particular one wedded to corporate America. He said that it would become a constant threat to our freedoms. He told us we had to watch the military-industrial complex closely."

"Have we?" Dave asked.

"No, we haven't."

"But a citizen army wouldn't be enough today," I said. "We have too many commitments."

"It *would* be enough if we stopped meddling in the affairs of other countries and if we stopped playing world policeman," Mac said.

"George Washington, in his own *Farewell Address*, warned us against foreign entanglements. He advised us that we should maintain our civility with foreign nations, but we should avoid permanent alliances with all of them. There was a time when school children had to memorize that speech and until the waning days of World War II Americans took his advice to heart and avoided most of the entanglements that had sucked European countries into the series of intramural wars they are so fond of."

Dave asked, "After World War II our army still depended on a draft which, in many ways, means it was still a citizen army. Then it suddenly went professional. What do you think prompted that?" he asked Mac.

"Resistance to the war in Vietnam," Mac said. "By and large, the American people didn't want involvement in Vietnam. In particular, the young—those who were being drafted to fight and die there—didn't want it. They didn't see the point in our being in Vietnam, they didn't see the Vietnamese as a threat to us, and they didn't see us trying to win the war. Though, as the war wore on, they also didn't see *why* we wanted to win it."

"And who knows how much longer it could have gone on? But, of course, it didn't. It became the first war in our history, and maybe the first war ever, that was stopped by the citizenry. Primarily, it was the young and college students—the very people who were going to have to go fight it—who put the brakes on it. But they were citizens, nonetheless. And I want you to keep that in mind when you ask for a solution to the existence of a large standing army, as I know you will."

Dave smiled.

"In the meantime, the guys in the field—those fighting in Vietnam—gave their all. And, in case no one was keeping score, they never lost a major battle. But by the time it was over, the United States became the first and only country in history to lose a war without *ever* losing a major battle."

"But if we'd had a professional army back then, it's highly unlikely there would have been any protests to that illegal war. And now, for as long as we have a professional army, there will never again be protests against insane wars."

"Why did you just call the war in Vietnam an illegal war?" I asked.

"Because what happened in Vietnam wasn't *officially* a war."

"What do you mean it wasn't? People fought and died in it."

"But it wasn't a declared war," Mac said. "It is officially categorized as a *conflict*, just as Korea was, because it was conducted under *Executive Orders* without war ever being formally declared by Congress."

"Desert Storm, Panama, Granada, and everything else we've been involved with since September 2, 1945 have not been wars."

"What do you mean by all of this?" I asked. I don't understand what you're talking about.

Mac said, "The *Constitution* reserves the right to declare war *only* to the Congress and by the terms of the *Constitution* the President cannot unilaterally decide to send the nation off into battle. However, as I said earlier (*Issue #69 May/June 2001*) Congress signed away many of its powers as well as the rights and the powers that the citizenry have had to run this country *through* the Congress. It did this when it gave presidents, beginning with FDR, the right to conduct themselves in any way they wish as long as he, the sitting President, claimed a *state of emergency* existed."

"Then you're saying that legally *only* the Congress can declare war," I said.

"Yes. The President, in his capacity as the Chief Executive, as provided for in *Article II, Section 2* of the *Constitution*, is tasked with overseeing a war, but he can't declare it. He's not supposed to commit American lives to wars the way ancient kings, emperors, and dictators did—except, of course, that he can do it now because Congress signed away their control about 70 years ago."

"Otherwise, *Article I, Section 8*, which declares the rights and powers of the Congress, states it is only the Congress that can declare a war. It is through the Congress that the will of the people is supposed to be enacted. Ultimately, we are the ones who are supposed to decide which wars Americans are willing to go off to fight and die in. But that's not the way it happens anymore. And we haven't fought in a war our Founding Fathers would declare *legal* since September 2, 1945, the day we accepted Japan's formal surrender. Yet, we've fought, bombed, and invaded countries since then. The President simply declares an *emergency* and sends in the troops."

"And the people no longer have any say," Dave said.

"That's right. And tens of thousands of Americans have died. At the same time, Americans have killed more foreign soldiers and civilians since World War II than we have in any declared war we've fought in, other than World War II."

"Further, I predict that the United States will *never* fight a declared war again for the rest of its history."

"And if we get into another Vietnam, will there be protests?" Dave asked.

"Protests on the scale we saw in the 60s and 70s will never happen in this country again. Those who protested over Vietnam did so because *they* were the fodder sent off to fight in

that military adventure. Congress didn't want a war bad enough to declare one and the people didn't want one either. But the President did and the military is tied to him because he's the Commander in Chief.

"But because today we have this professional army, I predict we will never see large scale protests over a war ever again."

"You're saying Congress couldn't stop the Vietnam War," I said.

"The Congress tried several times to limit, alter, or stop what was going on over there. But they never succeeded because they no longer had the legal authority. They had signed it away a generation before.

"I suppose," he continued, "to some people that this investing of greater powers in one man, the President, represents some kind of progress, but to me it's a giant step backward to the ages of kings, emperors, and dictators."

The solution

"Okay..." Dave started to say

"...what's the solution?" Mac said.

"You read my mind," Dave said.

"I told you earlier (*Issue #69, May/June 2001*) the first thing we have to do is get rid of or limit the use of emergency powers by the President. But the next part of the solution is to stop playing world policeman. Even in the darkest days of the Cold War, the British, French, and West Germans could have taken care of themselves.

"I'd also like to see us go back to a citizen army. An army like we used to have, and which served us so well for about two centuries, one that is based on service by the citizenry, places restraints on the Executive Branch of our government. It is much more difficult for a President to engage in foreign adventures when it's the everyday citizen he's sending. Presidents

Eisenhower's warning of the military-industrial complex

Until the latest of our world conflicts, the United States had no armaments industry. American makers of plowshares could, with time and as required, make swords as well. But now we can no longer risk emergency improvisation of national defense; we have been compelled to create a permanent armaments industry of vast proportions. Added to this, three and a half million men and women are directly engaged in the defense establishment. We annually spend on military security more than the net income of all United States corporations.

This conjunction of an immense military establishment and a large arms industry is new in the American experience. The total influence—economic, political, even spiritual—is felt in every city, every State house, every office of the Federal government. We recognize the imperative need for this development. Yet we must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society.

In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.

We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted. Only an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together.

Dwight D. Eisenhower
Farewell Address
January 17, 1961

Johnson and Nixon both discovered this.

"I'd also like to see us adopt a Swiss-type of military system."

"What's that?" I asked.

"Switzerland is one of the smallest European countries in both area and population. But on paper it has the largest military in Europe, over 400,000 soldiers, out of a population of about 6,000,000 citizens. I use the phrase 'on paper' because not all of them are on duty at any given time. In fact, at any time you can expect to find only 5,000 to 10,000 on active duty in the Swiss military.

"The way it works is that all young men go through 15 weeks of basic military training and then, for the next few decades, they all attend training camps for two or three weeks each year. The result is that, for all practical purposes, all Swiss men are

in the military. But the irony is that the Swiss neither fight wars nor do they meddle in the affairs of other countries. You can't get 30 and 40-year-olds to go off and fight senseless wars. But you *can* get them to defend their homeland.

"And no one, including Hitler, wanted to invade Switzerland, a country where the citizens were prepared to dynamite every point of entry into their country and where every able-bodied man has a military rifle in his home, cans of ammo with which to feed it, and the training to use it.

"The result is that, as long as the Swiss have such a system, they are incapable of getting involved in foreign adventures like we did in Vietnam, and no one messes with them.

"Can you imagine Lyndon Johnson having sold the country on getting involved in Vietnam or Nixon keeping us over there four years after promising to get us out in the 1968 presidential campaign, if it had been 30 and 40-year-olds going and not just a bunch of kids fresh out of high school and college?"

"But we got 30 and 40-year-olds to go to the Middle East for Desert Storm," I said.

"Yes, 30 and 40-year-olds in a professional army. A tyrant can always get a professional army to do your bidding. What I'm talking about is a citizen's army."

But I thought you were against large standing armies," I said.

"I am," Mac replied.

"Well, it sounds like, on a per capita basis, Switzerland has the largest army in the world."

"It doesn't," Mac said. "What they have is, in effect, the largest militia in the world. And that's what the Founding Fathers wanted, a militia. They wanted free *citizens* to stand ready to defend their country, not a professional army."

"There's a lot of calls to use the military for police actions, especially in the War on Drugs or to combat terrorism," Dave said. "What do you think of that?"

"Using the military for police actions within our borders would be a terrible mistake."

"Why?" I asked.

"Soldiers are not concerned with your rights. You're not going to get a *Miranda* warning and they're not going to wait for search warrants to break down doors and look for...well, whatever they look for."

"What about terrorism?" Dave asked.

"One of the problems with all these military forays we've taken—Vietnam, Iraq, Bosnia, etc.—is that we may eventually find revenge played out against us with war or in the form of escalated terrorism on our home front. And the irony is, if terror-

ist attacks are successful, there will be a clamor in Congress to relieve us of our basic rights. But I've said before that the best way to defend our freedoms is by *using* our freedoms, not by resorting to self-imposed tyranny."

"But how can we protect ourselves from armed terrorists?" I asked.

"Let me tell you a story," he began.

"One of the problems Israelis had was that terrorists began attacking their schools. Both students and teachers were taken as hostages or just outright killed. There seemed to be no solution.

"What were the Israelis going to do, place cops or soldiers in every school? I suppose they could have. But they hit on a much simpler and more effective solution and it was a very *American-like* solution. They simply let teachers arm themselves if they wanted. It wasn't mandatory, it was optional, but quite a few teachers availed themselves of the opportunity and suddenly terrorists were confronted with a dilemma: how do you attack a so-called victim who's going to whip out a gun and kill you? And how do you tell the unarmed victims from those who are carrying heat?"

"The result was that terrorism at the schools fell to zero, except for one foray into Jordan where a group of students, teachers, and chaperones took a field trip to a place near the Jordanian border ironically called the 'Zone of Peace.' The Jordanian government requested that the Israeli teachers and chaperones not bring their guns. So, out of respect, they didn't. But the terrorists learned about this and they also showed up and had a field day. It is, as far as I know, the only time Israeli teachers have willing disarmed themselves and it is also the only time I know of that terrorists have successfully targeted students and teachers since teachers started arming themselves."

"So, what's your final word on the military and national defense?" Dave asked.

Mac thought for a few moments. We were nearly done eating and the waitress had already dropped the check on the table. Mac grabbed it.

"I've got it," Dave said reaching for his wallet.

Mac shook his head and placed a credit card with the check which the waitress scooped up as she went by. "Let me get it this time," he said.

Then he was quiet. But, finally, he said, "My final word. Let me say this, I'm no admirer of Theodore Roosevelt, but there's one thing he said that I've taken to heart. He said, 'Speak softly and carry a big stick.' I'd make a foreign policy for this country by melding this with the essence of Washington's *Farewell Address* in which he warned against foreign entanglements. We'd be civil and courteous to all other nations, but if they mess with us, that's what the stick is for."

The waitress brought back the receipt and Mac added a tip, totaled the figures, and signed the bottom. Then we stood to leave.

"Is there anything else we should be concerned with?" Dave asked.

"There are plenty of things. But one of the things we should be concerned with is understanding the political change that's taken place in this country and how it's changing how we perceive freedom. And that we have become a fascist country without realizing it."

"How could we become fascist without realizing it?" Dave asked.

"Because people don't understand what fascism is. In the schools we have teachers defining fascism to their students as intolerance or equating it to the concentration camps the Nazis set up. It's not."

We walked out of the restaurant and got in Dave's car. Dave had some errands to run before we returned to the offices up in Gold Beach. Δ

In the January/February 2002 issues Mac, John, and Dave conclude this series with a discussion of how and why the United States is, in reality, now a fascist country.

Spinning fiber for the homestead

By Susan Shephard

Producing your own fiber from which to make your own cloth is an enterprise which can range from a hobby to an essential of life. Like most self-sufficiency endeavors, its economic practicality increases in proportion to the isolation of your homestead. It's a step in the journey toward greater independence.

In early America and England, every farm had its little flax crop or flock of sheep. Alexander Pope wrote of the happy farmer "Whose herds with milk, whose fields with bread/ Whose flocks supply him with attire..." Even after the Industrial Revolution, rural people around the world continued to wear leather and home-spun clothing. Each geographic area had, and still has, its traditional

fiber—wool in Scotland, silk in China, cotton in Mississippi, and linen in Belgium. Wild or exotic plant and animal fibers were used in many places. Finding out what has historically been grown or raised in your area is a good way to begin the process of choosing a homestead fiber.

Another determining factor in this choice is your individual situation. Do you live on two densely wooded acres with only a small percentage of cleared area? If so, sheep probably aren't for you, they need pasture land. Likewise, flax needs sunshine, cotton needs warmth, and angora rabbits need daily fluffings. Don't try to force your homestead to produce or sustain incongruous things.

Foraging wild plant fibers has a primitive appeal to back-woods folk. Indians used such fibers with great success, from pounded cedar

bark to nettles, sunflower plants, and fireweed—

almost every fibrous plant material has been spun at one time or another.

Interestingly, wild plant fibers were often spun together with one another or with wild animal fibers. This produced a yarn

that had the best qualities of both elements, such as strength (nettle fiber) and softness (fireweed fluff). It also reduced dependence on one species of plant or animal.

Exotic and/or wild animal fibers are another thing to consider. Dog hair—the soft under-

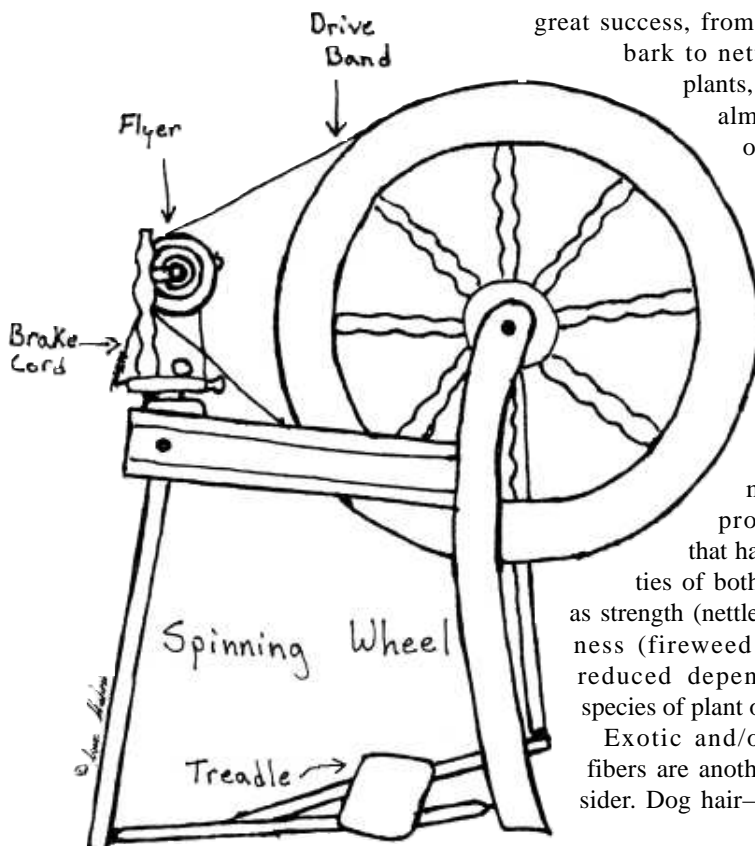
coat, not the shiny, slick kind—may be a very practical option. It has no odor once it's washed, and no, it doesn't smell like a wet dog if it gets rained on. Alpacas, a relative of llamas, have lovely spinnable coats, as do several breeds of domesticated goats. On the wild side, mountain goat hair is heavenly to spin once you remove the long guard hairs. Just about any kind of animal fiber that has crimp and loft will work, but again it's a matter of finding a plentiful source.

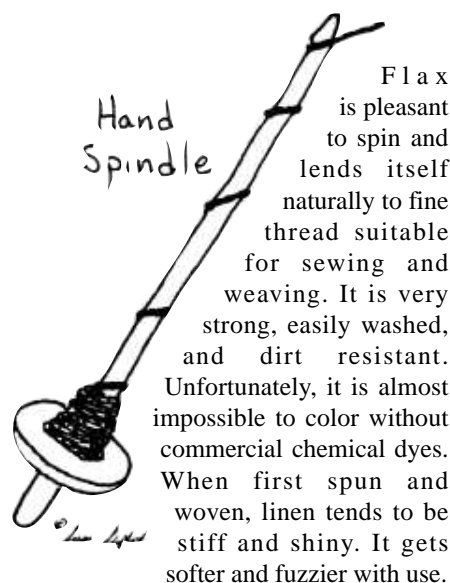
Unlike many plant fibers, the majority of light colored animal fibers can be dyed using natural materials. Check herbal books, local history, and Native lore to find out about the natural dyes in your area. If you have the time and inclination, natural fiber dyeing could be a great bartering tool.

I don't know much about cotton as a homestead crop except that it does take dyes easily. Silk, unless you have extremely unusual conditions, is not practical for small-scale production.

This brings us to one of my two favorite mainstream fibers: flax, or linen. Flax is easy to plant and a quarter acre produces enough for a family. In my experience, pests leave it alone, it tolerates a wide range of weather conditions, and it is easy to harvest. Its seeds can be pressed to obtain linseed oil.

Flax, like most plant fibers, must be processed to remove the woody waste materials from the spinnable part. This involves drying, rotting, breaking, and combing. Only the simplest tools are needed for this, but it is a time consuming and involved chore. Warm weather and a good supply of clean water are needed for the rotting process, which can take as long as a month.





Wool, my other favorite, is a wonderful thing. For the independence-minded homesteader it assumes sheep, which need food, shelter, health care, and shearing. Four sheep will provide enough wool for a family. Keep in mind that buying sheep in an attempt at self-sufficiency and then depending on someone else to sell you their feed is a false economy. Also remember that sheep can provide not only wool, but mutton and even milk, if you're so inclined.

What wool lacks in convenience while on a sheep, it makes up in convenience when it's off. It doesn't require the processing that flax does—just carding (or combing) and cleaning. It's easy to spin and great for knitting, weaving, and felting. Wool takes natural dyes very nicely. Though washing it requires some care, it is strong and exceptionally adaptable.

Raw (unwashed) wool contains lanolin, which is an object of differing opinions among spinners. I like it—it makes my hands soft, holds the wool fibers together, makes the yarn water and wind resistant, and smells like a romanticized barnyard, which I think is nice. Some people consider it dirty and smelly, and use warm water and detergent to get rid of it.

Linen and wool can be blended to make linsey-woolsey, which was pop-

ular in days of yore. It's strong like linen and warm like wool.

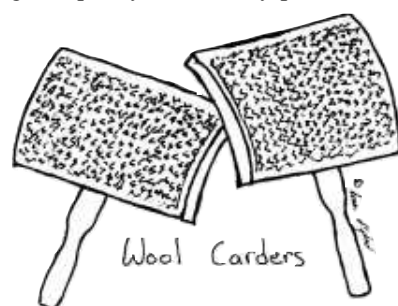
Once you've chosen the fiber(s) you want to produce, consider two spinning options: the hand spindle and the wheel.

The hand spindle is a very old and simple tool, essentially a stick and a flat circular whorl. Ancient peoples had numerous variations of this basic design. As the spindle is twirled, twist runs up into the fiber, more fiber is pulled out, more twist runs up, and so on. At intervals the spun yarn is wound around the spindle for storage.

A hand spindle is easily made, easily used, easily transported, and easily replaced. It's quiet and you can spin super fine thread or bulky yarn on it. Every spinner, especially backwoods types, should have a hand spindle and know how to use it. Depending on one for large quantities of yarn is a different story.

Despite the impressive feats of hand spindle spinning throughout history (all the cloth of the Roman Empire, all the sails of ancient ships), I can guarantee you that an old-time spinner would have wept and kissed your feet had you appeared in a time machine with a spinning wheel. A wheel makes more yarn, faster, than a hand spindle, and is therefore much more practical.

Depending on where you live, you may be able to find a low-priced spinning wheel in an antique store or flea market. The Cumberland General Store sells an inexpensive wheel which with basic care and a few homemade improvements could conceivably last a lifetime or longer. I own an Ashford spinning wheel—good quality, moderately priced, with



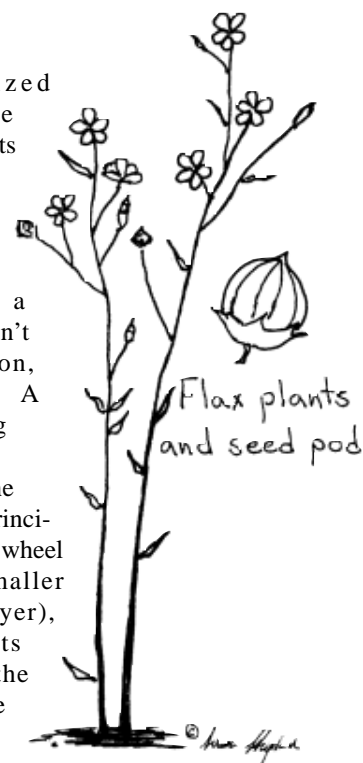
standardized replaceable parts and lots of nifty extra gizmos available.

If buying a wheel just isn't an option, improvise. A spinning wheel works on the fly-wheel principle. A large wheel turns a smaller one (the flyer), which puts twist into the fiber. The yarn winds

around a bobbin on the flyer shaft, and the wheels are kept in motion by a treadle. Old treadle sewing machines have been converted into spinning wheels, and an ingenious person could build one from a bicycle tire rim and scrap lumber.

The average wheel weighs about 15 pounds and doesn't take up much room. In use, it emits a quiet, rhythmic sound. A spinning wheel is really a nice addition to a country home, beautiful and efficient. Learning to use one may seem impossibly involved at first, but like everything else it just takes a little practice.

A neat element in learning old-fashioned skills is the enlightenment they give on other areas of life. When you've milked a cow or goat, winnowed out chaff, or spun yarn, you begin to read poetry, fairy tales, and even the Bible with a whole new level of understanding. And for the unpersuaded, let me mention that the hum of a spinning wheel is right up there with the sounds of rain on the roof, logs crackling in the stove, and coffee perking on a cold winter morning. Δ



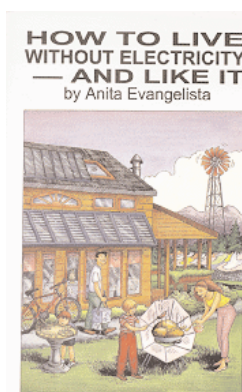
Book reviews

...three books by Anita Evangelista

By Diamond Joe Wolcott

One morning it will happen: you'll wake up and the electrical power will be off. It could be minutes, or days, before the grid kicks back in and turns the freezer, stove, and central air back on. It's at that point, when the hums of electrical appliances have been silenced, that you'll be glad you have this trio of self-reliance titles on your book shelf.

The title that will see you successfully through those inevitable brown-outs and power-outages is *How to Live Without Electricity—And Like It*. A more accurate title might have been *How to Live Without the Electric Company* or *Cutting Loose*



From the Grid. Even though the author points out that she likes having abundant electrical power...like the rest of us, she just can't afford to pay for it.

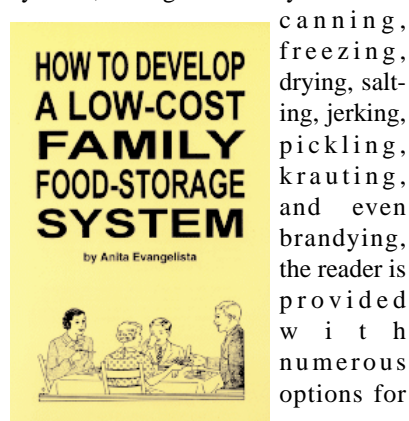
By explaining the benefits and drawbacks of each approach, the author covers such widely divergent power concerns as: lighting by candles, oil and kerosene lamps, propane-powered lights, and solar systems; how to pump and store drinking water from home sources; how to cook using non-electrical methods such as gas, wood, and solar stoves; and how to keep warm and cool without a major power bill. This wide variety makes the book useful for those who want to totally disconnect from the grid, and equally helpful for the person who just wants to

have some backups in case the power goes out for a while.

Refrigeration is always an area of particular concern, and this book shows that non-electrical methods are both available and simple to use. These include sources for kerosene-powered 'fridges; how to store supplies in cool shelters; as well as the long-forgotten "cold shaft" that uses the cold air stored underneath floors and can be built right into your house.

Methods of communicating with the outside world when the power's out, such as CBs, battery-powered backup radios, and computers, and assorted communication devices are also described. This book didn't forget home-power generating, either, and includes info on generators and battery-power. The long list of resources and catalogs provides a way to acquire materials, if you can't find supplies locally.

Meanwhile, with the power off at home, it may become problematic determining where you are going to get your next warm meal. In *How to Develop a Low-Cost Family Food-Storage System*, this problem is solved by detailing the multiple methods of storing foods—all designed with the thrifty in mind. From gardening, through various food buying systems, through the heavy details of

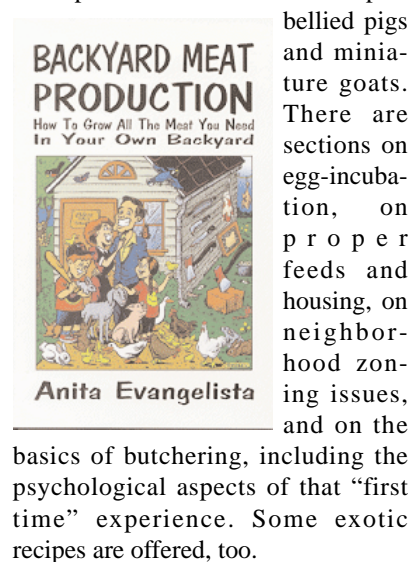


canning, freezing, drying, salting, jerking, pickling, krauting, and even brandying, the reader is provided with numerous options for

keeping foods on hand. Bulk storage, inexpensive grain sources, bartering, acquiring foods inexpensively, and tips on how to behave during periods of food delivery disruptions round out this book.

An interesting feature of the "foods" book is the sampling of recipes for various storage methods. For instance, there's descriptions of how to make wines from leftover vegetables (yes, even zucchini wine!), and a way to make meltable, stringable, Mozzarella cheese in two steps. Resources and seedstock providers are included, as well.

The third book in this collection is *Backyard Meat Production: How to Grow all the Meat You Need in Your Own Backyard*. As the title suggests, this is a guidebook for the first-time livestock owner who is limited to a small area of land. Covering "everything you need to know" about raising and processing small animals, it explains cage-raiseable rabbits, chickens, Coturnix and Bobwhite quail, pheasant, guineas, and ducks. It also includes the somewhat larger and more productive small livestock: pot-



bellied pigs and miniature goats. There are sections on egg-incubation, on proper feeds and housing, on neighborhood zoning issues, and on the basics of butchering, including the psychological aspects of that "first time" experience. Some exotic recipes are offered, too.

In explaining the details of raising your own meat, this book hammers home the same point made in the other two titles: self-reliance in producing and storing your own food


and in providing your own power, handled in as thrifty a method as possible. Even though these are not newly-released titles, the theme is familiar to readers of *Backwoods Home*, and is becoming more appealing to lots of other people in the mainstream who find their investments gone awry. Throughout these books, the author assumes a general willingness in the reader—the willingness to be responsible, to try new approaches, and to think through the results of one's actions.

Pretty good description of this magazine's readers, don't you think?

(All three of these books are available from *BHM*. See the order form on page 88.)
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See page 89 to order.

Build a split-rail fence in impossible soil

By Dorothy Ainsworth

A piece of property in the country is just a romantic notion with a mortgage attached, until you put some sweat equity into it. Then, if you're a do-it-yourselfer like me, the improvements are so gratifying it can become your passion.

The quickest and most visual way to transform plain old land to the status of "homestead," "farm," or "ranch" is to put a handsome fence around it. It's like outlining a chapter before you write the book. And because we're territorial animals, fences define our boundaries and make us feel secure.

Some people like white picket fences, some prefer post and wire, but most of us backwoods types love natural wood when we can afford it.

A split-rail fence, whether straight or zigzagged, is inherently rural in its meandering style and retains a poetic beauty even after it's old and gray.

I had always wanted to build one, so when my neighbor offered to sell me 82 handsplit cedar rails (10-footers) for \$4 apiece (half-price), it was a deal I couldn't pass up. While visualizing the finished fence in all its rustic splendor, I bought them on the spot. Then reality hit and I wondered how in the heck I was going to anchor my dream fence into nightmare soil.

The hard rocky ground along the front of my property was virtually impenetrable by conventional digging, so I immediately thought of rebar posts.

Rebar has been a quick, cheap, and strong solution to a lot of my prob-



Closeup of rebar and wire "cradles" top and bottom

lems over the past 20 years of property development. I had fastened my log and timber house together with



The little remodeled outbuilding that Dorothy lived in while building her home farther up the hill looks great behind the sturdy, rustic split rail fence.



Dorothy Ainsworth digs the starting holes in the gravel with a pick.

rebar, built a retaining wall with railroad ties and rebar, staked out trees with rebar, and, of course, used rebar in all my concrete work.

Rebar is as versatile to this lady “pink-neck” as Jeff Foxworthy says bailing wire and duct tape are to a bona fide “red-neck.”

I came up with a workable idea, but it involved some help. I’d ask my boyfriend Kirt to pound several pairs of rebar posts into the ground with a sledgehammer. (The legs of each pair 6 inches apart.) Then I’d wire the posts together top and bottom to keep them parallel, using the bottom wire, set 6 inches off the ground, to rest the first rail on.

I would need 48 5-foot lengths of ¾-inch rebar (24 pairs), set at 8-foot centers, for a 184-foot fence. That length would use all my rails. With gut-busting effort and some real luck, I figured they’d go into the ground 18

inches, leaving 3½ feet for the fence height.

Like so many projects before, high energy expenditure had to compensate for low money expenditure (\$12,000/yr. income). My cost for this fence would be 1/10th the going rate. There’s an old saying: “You can augment your means or diminish your wants.” Since I’m not willing to do either, I spend myself (a rechargeable resource) and try to have it all.

The local steel supplier had ¾-inch rebar in stock for 30 cents per foot and he cut it to length for me free. I recruited Kirt and we started in, using a small diameter post-pounder-cylinder (homemade) and a big sledge. With sheer power and brute force—and all the accompanying sounds—Kirt “Jackhammer” Meyer drove the rebar in like a madman on the “Gong Show.” As we moved along the staked-out line, I stabilized each post with a coward’s grip and wincing face, while dodging the “near-misses” with every blow and making a few of my own sound effects.

If I hadn’t had Kirt on hand, I would have ground a pencil point on one end of each rebar post to help it penetrate the ground. I’ve found that grinding metal on an electric grinding wheel is surprisingly fast and easy—and it’s fun to watch the sparks fly. Also, because I’m short, I would have stood on a step ladder for better striking power with the sledge. There’s almost always a way to work alone, but the task takes longer.

When Kirt’s job was done, so was he—understandably. As he staggered off to take a well-earned nap, I proceeded on with the fun part.

For wire, I had chosen solid 10-gauge copper because of its warm color, ease in bending, and no-rust properties. (200-foot roll at 10 cents a foot.)

I twisted all the bottom wires around and between the posts, satisfied that the rough-textured rebar gripped the wire securely. Then I laid

on the courses of split-rails, alternating 4, then 3, then 4, on down the line for a pleasing design.

I placed the final wire 4 inches down from the top so the last rail would cap off the fence, hiding the wire and the post-ends. Any rebar sticking its head up too far was decapitated with a Sawzall.



Kirt “Jackhammer” Meyer takes aim at the post-pounder atop one of 48 pieces of rebar.

I splashed some stain on the rails, and the fence was completed in one day, for a grand total of \$2.50 per foot of running fence. That was six years ago and it hasn’t aged a bit. I wish I could say the same. Δ

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Cookies in a jar

By Sharon L. Palmer, RD

Gourmet country cookie mixes are quite popular these days, fetching upwards of \$15 in catalogs and gift shops. These are hot sellers because there's not a soul on this planet who wouldn't love to curl up to a homemade batch of cookies on a winter evening. Why not make your own cookies in a jar for gift giving this holiday season?



Cookies in a jar are easy to make and make great gifts.

Ranger cookies in a jar:

Layer the following ingredients in the glass jar in this order:

- 1/2 c. white sugar
- 1/2 c. brown sugar
- 1 c. rolled oats
- 1/2 c. rice krispies cereal
- 1 c. all purpose flour
- 1/2 tsp. baking soda
- 1/2 tsp. baking powder
- 1/2 tsp. salt
- 1/4 c. coconut
- 1/2 c. chocolate chips

Make an instruction sheet as follows:

Ranger cookies

Preheat oven to 350° F. In a medium bowl, cream together 1/2 c. margarine, 1 egg, and 1 tsp. vanilla. Add the entire contents of the jar and mix until combined. Drop by heaping teaspoon on ungreased cookie sheet, and flatten with fork. Bake for 10-12 minutes, until lightly golden.

Rainbow chip cookies in a jar

Layer the following ingredients in a clean glass jar in this order:

- 1/2 c. sugar
- 1/2 c. brown sugar
- 2 c. all purpose flour
- 1/2 tsp. salt
- 3/4 tsp. baking soda
- 1/3 c. peanuts
- 3/4 c. mini colored baking chips

Make an instruction sheet as follows:

Rainbow chip cookies

Preheat oven to 350° F. In a medium bowl, cream 3/4 c. margarine, 2 eggs, and 1 tsp. vanilla. Add entire contents of jar and mix well. Drop by heaping teaspoonfuls on ungreased cookie sheet. Bake 10-12 minutes until lightly golden.

Cookies in a jar general instructions:

*For each batch, start with a clean quart-size canning jar, canning lid, and seal.

*When layering ingredients in jar, spoon them in carefully so as not to disrupt the previous layer.

*Slightly pack each layer, so that there is a definite line of demarcation for each layer. The top layer may need to be decreased or increased slightly, so that the layer comes all the way to the top where the seal will fit directly on top.

*Select decorative fabric and cut out a 6" diameter circle, using pinking shears if desired.

*Center the fabric over canning seal, and place canning lid on top of the fabric and seal.

*Select coordinating ribbon, raffia, or trim (1/2 yard).

*Hand write or print on computer in desired font the cookie instructions on coordinating paper. Trim with paper



Christian and Nicholas mix up a batch of cookies in a jar.

Chocolate chip walnut cookies in a jar

Layer the following ingredients in a clean glass jar in this order:

- ½ c. sugar
- ½ c. brown sugar
- 2 c. all purpose flour
- ½ tsp. salt
- ¾ tsp. baking soda
- ½ c. chopped walnuts
- ¾ c. chocolate chips

Make an instruction sheet as follows:

Chocolate chip walnut cookies

Preheat oven to 350° F. In a medium bowl, cream ¾ c. margarine, 2 eggs, and 1 tsp. vanilla. Add entire contents of jar and mix until combined. Drop by heaping teaspoonfuls on ungreased cookie sheet. Bake for 10-12 minutes.

Country oatmeal cookies in a jar

Layer the following ingredients in a clean glass jar in this order:

- ½ c. sugar
- ½ c. brown sugar
- 1 c. rolled oats
- 1 c. all purpose flour
- ¼ tsp. salt
- ½ tsp. baking soda
- ½ tsp. cinnamon
- 1 c. raisins

Make an instruction sheet as follows:

Country oatmeal cookies

Preheat oven to 350° F. In a medium bowl, cream ½ c. margarine, 1 egg, and 1 tsp. vanilla. Add entire contents of jar and mix until combined. Drop by heaping teaspoonfuls on ungreased cookie sheet. Bake for 12-15 minutes until lightly golden.



A finished batch of country oatmeal cookies

trimmers and decorate with stickers if desired. Instruction sheet should be approximately 2 x 4" in size.

*Punch hole in top left corner of instruction sheet.

*When jar is ready, tightly screw on the seal/fabric/lid and tie ribbon around the lid tightly.

*Attach the instructions through the punch hole and make a decorative bow.

(Sharon Palmer is a registered dietitian in Pasadena, California.) Δ

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Precious persimmons

By Marcella Shaffer

My first experience with the persimmon was not a pleasant one (to my father's immense amusement). I picked the not-yet ripe fruit and eagerly bit into it, only to be greeted with a horrible taste that made my mouth pucker. After my father quit laughing, he explained about eating only ripe persimmons but it was quite a while before I was adventurous enough to try another. Later I learned that alum or tannin is the compound that makes unripe persimmons so astringent, so when I next happened upon that same tree, I picked one of its fruit. It was early

winter and the tree was bare of leaves with just the golden globes hanging from its branches. Cautiously I bit into it, and was rewarded with an intense flavor and succulent texture. Persimmon trees are of the genus *Diospyros*, which translated from Latin means "food of gods," and after tasting a ripe one, I can see why. The sweet fruit was delicious.

Persimmons can be eaten fresh or dried for later use. The fruit makes tasty puddings and a delicious fruit bread. Replace half the bananas in banana bread recipes with persimmons, or chop in small pieces and add to nearly any recipe instead of raisins. One lady I know adds the per-

simmon pulp to her pumpkin pies and insists they are her family's favorite.

Few serious pests or diseases bother this heavy bearing tree, making it ideal for growing for fruit production. The late ripening fruit makes it convenient to harvest and preserve, since the hustle of summer and fall picking and preserving are over when persimmons ripen. Even when ripe, they will keep on the tree for several weeks. The tree is beautiful. It has flowers in the spring, and deep green leaves that provide shade in the summer and turn into a blaze of color in autumn. Later, the bare branches with the colorful fruits are beautiful. The wood of the persimmon tree is hard



and highly prized by carvers because of its close-grain and beautiful appearance when finished. Commercially it is used for golf club heads and other such applications.

Persimmon types

In addition to the wild-growing, native persimmon tree, there are two basic types in cultivation: the American and Asian. If you cannot find a native tree to harvest the fruit from, you can buy persimmon trees from some nurseries. (See mail order sources) They are listed in many nursery catalogs as "exotic" fruit trees.

The native persimmon can be found growing throughout the Appalachians, north to Connecticut and south to Alabama and Texas. The fruit is very astringent until after several hard frosts have occurred. When the fruit is ripe, it will be orange with translucent skin and very soft. Wildlife loves the sweet fruit so your biggest challenge in harvesting them from the wild may be competing with the animals.

The American persimmon, (*Diospyros virginiana*) is the offspring of the wild growing native persimmon. Hardier than the Asian variety, it will grow further north, surviving winters of -20 degree F. The fruits of all American persimmons are astringent, and should only be harvested after the fruit has developed full color and become soft. "Early Golden" is the most widely planted American persimmon while "Meader" is one of the hardiest.

The Asian persimmon (*Diospyros kaki*) is hardy only in the warmer climates of growing zones 7-9. They may be either astringent or non-astringent and the non-astringent varieties can be picked and consumed while still hard like an apple. "Fuyu" is a popular non-astringent persimmon and "Hardy Russian" is one of the hardiest of the astringents.

Planting and care

Depending upon your climate, persimmon trees are planted in early spring or late fall. The trees do not withstand transplanting well, so make sure of the tree's desired location before planting. They prefer a slightly acidic soil that is well drained. Plant in an area that receives full sun (American varieties will tolerate some light shade), and 20-25 feet from other trees. Annually add compost to the tree in late winter, but avoid excess nitrogen, which can cause the fruit to drop. Persimmons have very deep taproots so keep well watered during their first few growing seasons. Typically they begin bearing fruit at 4 to 5 years of age.

Persimmon trees are male, female, or both, so you will need to plant both a male and female tree. Find out what your tree is when buying and purchase accordingly. Even those that are self-pollinating will produce better when a pollinator is nearby. However, Asian varieties pollinating American and vice-versa is usually not successful.

Prune young trees in winter as you would any fruit tree, leaving a central leader with 6-8 side branches. After they become established and begin growing, little pruning is necessary. American varieties tend to develop suckers that require yearly removal.

Harvesting & preserving

Persimmons are ready to harvest from September to December depending upon where you live and the type of tree you have. The fruit will first be green, turning to yellow, and finally orange when ripe. Non-astringent Asian varieties are harvested when they are fully colored but still firm. Astringent Asian and the American varieties should be harvested when the skin is translucent and the fruit has become soft.

The fruit of American varieties will begin dropping when it is ripe. In some areas this may be after several

hard freezes have occurred or even the first snowfall. Don't worry, it won't hurt the fruit.

Persimmons are usually preserved by freezing or drying. To freeze persimmons, mash the soft pulp from the skin (or put through a food processor), place the pulp in freezer bags, and freeze. To dry persimmons, peel and then slice in 1/2" thick slices. Dry until they are brown and leathery, then store as any dried food.

Recipe

This bread is moist and perfect for snacking or desserts. Served after it has cooled or while still warm from the oven, it is delicious.

Spicy persimmon bread

| |
|--------------------------|
| 2 c. persimmon pulp |
| 3 c. flour |
| 1 tsp. salt |
| 2 1/2 tsp. baking powder |
| 2 tsp. baking soda |
| 2 tsp. ground cinnamon |
| 1 tsp. ground nutmeg |
| pinch ground cloves |
| 2 c. sugar |
| 2 eggs |
| 1 1/4 c. applesauce |
| 1/2 c. raisins |
| 1 Tbsp. vanilla |

Sift dry ingredients into a bowl. In another bowl beat eggs and add persimmon pulp. Stir, then add applesauce and vanilla, mix well. Add dry ingredients and raisins to pulp mixture then stir until well blended. Pour into greased loaf pans and bake for 50 minutes, (or until done) at 350° F. Δ

Mail order sources for persimmons

Northwoods Nursery, 28696 Cramer Rd,
Molalla, OR 97013 (503) 651-3737
Just Fruit, 30 Saint Frances, Crawfordville,
FL 32327 (850) 926-5644
Edible Landscaping, 361 Spirit Ridge Lane,
Afton, VA 22920 (804)361-9134
Oregon Exotics, 1065 Messinger Rd, Grants
Pass, OR 97527 (541) 846-7578

Ask Jackie

above-ground root cellars, “cream” soups, finding a rural place to live, canning spaghetti, rabbit liver paté, harvesting basil, black walnuts, quinces, sourdough starter, short-season crops, and more

We have 5 acres of fairly flat rocky land, and I'm interested in information about an above-ground root cellar made from tires; is it feasible, and is it effective?

Marie

I had a friend who made an above-ground root cellar with tires, rocks and earth. This cellar was built into the side of a hill and was about 10 by 12 feet inside. The walls were four feet thick at the bottom and about two feet thick at the ceiling height of five feet. John simply stacked tires three wide all around the outside walls, leaving a doorway just wide enough to get a wheelbarrow inside. The doorway was framed with 6x6 timbers spiked together. The base tires were then filled with rocks and soil, firmly packed down. At the doorway, he screwed the tires to the door frame, which was braced up until the walls were done. The next layer was smaller tires, still three wide. All were filled with rocks and dirt. This was repeated, using smaller or fewer tires, making a slight tapering to the top wall in which the tires overlapped each other, as do bricks or stones in a building. When the walls were up, he shoved up a berm of soil on the outside with his tractor bucket, giving extra insulation and strength. The roof consisted of peeled six-inch poles laid across, touching each other. On top of them, he laid a heavy dou-

ble poly pond liner. Then on top of that, he placed 2 inches of rigid foam insulation, followed by about a foot of soil. Depending on your soil and the type of poles (hardwood or soft) you may want to brace the center with an inside heavy beam and upright posts.

Finishing off, he ran a six-inch vent tunnel up through the roof, which could be shut off from below in extremely cold weather. An insulated, double door completed the construction. Depending on your climate, this may or may not work for you for winter storage of fruits and vegetables. In extreme climates, it might not keep them from freezing during the coldest part of the winter. As you did not say where you live, I can't advise you about this; you'll just have to give it a try. For John, it worked pretty good and he experienced little loss.

— **Jackie**

I live in Montana where we have an abundance of morel mushrooms. I plan on drying some for future use. I would also like to can some cream of mushroom soup, but so far no one can help me figure out how to do this. I am tired of paying the high price for this and I use a lot of it in my cooking. Can you help me with a recipe and how to can it? I really enjoy your articles and they help a lot.

Dena García



Jackie Clay

I've tried several “cream of this and that” soups and have not been happy with the results. The usual result is clumpy or semi-curdled soup. (If someone has a recipe, I'd also like it.) Instead, I can up half pints of diced mushrooms. When I need cream of mushroom soup for a recipe, I simply melt one tablespoon of butter in a small saucepan and add one tablespoon of flour, stirring well to make a roux. Then I stir in enough milk to reach the thickness I need. Add the drained half pint of diced mushrooms and simmer to mix well. The entire time this takes is about two minutes, so it's hardly a pain to make fresh, homemade cream of mushroom soup. Any spices you desire can be added while it simmers briefly, and you can also add dehydrated chicken or beef soup base.

This same method can be used to make homemade cream of celery, chicken, asparagus, and broccoli soups for other recipes or just to enjoy as a meal. You can alter the amount of milk as needed for each recipe. If you will be using “condensed” soup, without adding milk, simply add less milk; reconstituted soup, add more milk. The more you get in the habit of making your own,

the more the high prices at the store will be a thing of the past. — **Jackie**

Thank you for putting in your time and effort into everyone's questions. My question pertains to our family's future. I am 26 years of age and my husband will be turning 30 this year. We have three children of our own and have adopted 3. They range in age from 1 to 14 years. So we have 6 kids in total. We currently rent our home and run a child day care. It's an o.k. income. We are trying to clear up our credit so we may obtain property of our own in the next year or two. My husband and I grew up in the city and our hearts long to be in the country. We live in California and we just want out. We both really don't want to do day care anymore. We currently pay out \$2,000 in rent. This could go towards a farm payment! We receive a monthly check of \$1,600 from adoption services. We recently visited a farm in the city of course and my kids were completely overtaken by it. Our son spent his \$25 for a baby goat. He could have spent that money on a skateboard, but he didn't! We have a large family. We love animals and we want out of the city. How do we do this? Is it a good idea? We would continue receiving the \$1,600 for the next 5 years but of course that may not be enough for our size family, or would it? I would more than likely homeschool all our children. What kind of income would be suggestible for our size family? Where would we find a good place to live?

There are so many states to choose from, but where do you begin? Is chicken raising a good idea? Or how about natural fruits and vegetables. We need a lot of helpful advice.

Mercedes Hamel

I wish I had space to do a book for you. But a few ideas: I can not speak for you, but I have raised nine children (two homemade, two adopted

from India, three from Korea, and two stepchildren) on a very low income, *but* on a homestead where we raised a lot of our own food. Here's what I would do if I were you:

I would try to get out of debt—credit cards, car payments, etc. Then sock away every cent you can toward your new place. Renting is like putting money down a rat hole. You never have anything left but the hole. I've found that it's better to buy what you can afford instead, even if it's not much at first.

Talk to your children. Ask for their help in saving for your homestead. Ask for their ideas of what they want. You'd be surprised at how adult they will begin to feel. It may take a year or two, or even more, to save enough to buy your land. With a goal in mind, everyday work (even daycare) can be more bearable. If you feel that you simply must get out soon, save as much as you can for your down payment and go for it. While you save, get busy and decide where you want to live. The states with the cheapest land are cheap for a reason: climate, lack of good paying jobs, and lack of "beauty" head the list. You'll have to do your research; make it a family affair. The kids'll love it. And they'll learn about a lot of states.

When you find a state that interests you, write to Chambers of Commerce in several cities and towns in different areas, asking for real estate offices that serve those locations. Then write them for listings. You should develop a prospective homestead, the ideal for you, and go from there. For instance, a fixer-upper farmhouse and outbuildings within 50 miles of a city with well or springwater, 4 bedrooms, 1 bathroom, garden, fruit trees, pasture and woodlot on 20 acres or more for under \$50,000 with \$25,000 down and owner financing. (Cash is always the best, but is sometimes tough to get hold of.) *Rural Property Bulletin* (see ad pg. 22) is also a great place to find your new homestead.

Be sure to check out the home-school-friendliness of the state of your prospective choice. Some states cause many problems for home-schooling families; others are very good. I firmly believe that country life is much better than any town life ever could be, as a family has the opportunity to be much more self-reliant on a homestead than in town. Children learn a lot about life, responsibility, goal setting, birth, death, how to enjoy working for "recreation" and compassion for other living things. They have more time for each other, as you will for them. There are fewer drug and alcohol problems to face in the country. But even in many smaller towns, today, these problems are rearing up.

When you see several listings in your price range in an area, you'll want to take a trip out to take a look. You can often find good deals on airfare. Probably it will be best if one of you flies out, rents a car, and takes a look at several properties, even in different states, rather than taking the whole family and checking out one place. It will be cheaper and give you a better idea of what is available in your price range.

Look for useable, buildable land. See if there is even a house on the land, check neighbors (how near, how far), check for good water, ensure you won't be in a potential disaster area (flood plain, volcanic activity, tornado alleys, earthquakes, nuclear power plants, missile silos, etc.).

Don't buy a place that is so expensive that you will be in financial trouble trying to make the payments. Better to buy several acres with a well and septic and older home (or move a mobile on) that you can afford than stress the family by buying a pretty place that you have to scramble for payments every month.

As for necessary income, it depends on your family. I got by on very little by raising our own meat, vegetables, and grain, having dairy animals, can-

ning, buying used clothing at flea markets and yard sales, *and* working hard. But three of my kids bucked pretty hard due to peer pressure in school. They wanted designer clothes, to play football on the junior high team (a 60-mile round trip, daily, for me), and wanted to attend a school for the deaf because of the extra activities. (The three from Korea were severely hearing impaired.)

If your children are satisfied with happy family life without frills, you can get by on very little. The one exception is health insurance. This is the hardest part of living in the country. Few lower paying town jobs provide health care benefits, and insurance is expensive. By keeping your payments down to bare minimum (utilities, gasoline, home, etc.) and by practicing a constructively frugal lifestyle, you can get by on relatively little and do well. I stress **frugal** lifestyle; I see many new-to-the-land homesteaders rush out and buy, buy, buy....then crash and burn.

Go slowly. Make a medium sized garden that you can handle. Plant a few fruit trees, berries, etc. Build barns, coops and fences, then get your animals—a few at a time. Spay your female cats and dogs; those sure-to-come kittens and puppies are so cute kids can't bear to part with them, and soon you'll be overrun with pets and pet-care bills. I can't give you a fixed "must have" income to live in the country. We've done it on less than \$250 a month for the three of us, and gotten by because we paid cash for our small homestead and stayed there, not going off to town every other day to buy, buy, buy. But in reality, you probably wouldn't want it.

— Jackie

I just bought myself a new pressure canner and was wondering if you have ever canned macaroni products (goulash, spaghetti)?

I thought I could save myself some money by doing it myself. Chef

Boyardee doesn't need the money as much as I do.

Debbie Taylor

Sure, I can several pasta recipes. They're easy, but I can't say we really love canned spaghetti; fresh is so much better. But homemade canned is *much* better than store-bought. We can't even eat that stuff.

Simply make your favorite recipe, cooking the pasta until just barely done; it needs to expand a bit, but *not* get tender or you'll end up with mush. As soon as the recipe is done, dip it out into clean quart jars (wide mouth work best), up to 1 inch from the top. Wipe the rims with a clean cloth, place hot previously boiled lids in place, and screw rings down firmly. Process for the longest time needed for any ingredient, usually the meat. Check in your canning book before starting and jot down the time needed. Go a little easy on the spices, as they tend to intensify during canning and storage. You can always add more when you simmer to heat back up before eating. (As with any other canned food, you should simmer for 15 minutes before tasting to be absolutely sure you kill any possible harmful bacteria.)

— Jackie

My wife and I have recently made the decision to pursue a more self-reliant form of daily living, as we both are subscribers to BHM. Do you have or know where we could obtain an absolutely foolproof recipe for canning soups and pears (or similar fruit)? We basically are looking for pressures and boiling times. As you know, there are so many recipes out there that we have gotten quite confused reading these.

**Troy and Michelle Hammond
Millersburg, MI**

I sympathize with your effort, and I know how challenging home canning seems at first. Remember, one rule when canning soups and stews:

process the food according to the individual food in the recipe that requires the longest processing time. This is usually meat, which requires 90 minutes at 10 pounds of pressure (adjust your pounds of pressure according to altitude above 1,000 feet above sea level or greater; see your canning book). By reading your canning book, just check your meat, then all of your vegetables. Of vegetables, corn and cabbage take the longest processing of most soup/stew vegetables.

As for fruits, pears are about as easy as any, but nearly all of them are processed the same way. First, a sugar syrup is boiled to dissolve the sugar entirely. This syrup can be made as thin or as syrupy thick as you want; it does little to make the fruit "keep." My husband is diabetic, so I can much of our fruit in a very light syrup, which is rinsed off on serving. Other families have a sweet tooth and make really sweet canned fruit.

Make your syrup as follows: For thin syrup, mix 1 cup of sugar with 3 cups of water; medium syrup is 1 cup of sugar with 2 cups of water; and heavy syrup is 1 cup of sugar in 1 cup of water. You may double or triple the recipe *if* you have a kettle large enough to let this come to a complete boil (and not boil over on your stove—what a mess).

For any fruit, peel and cut up into size you desire. I cold pack nearly all my fruit just because I can get it done quicker. In cold packing, the first step is to peel, then pack the fruit into clean canning jars. The only problem is that cold packed fruit tends to float to the top of the syrup somewhat. But there's no difference in taste or keeping qualities. With hot packed fruit the first step is to peel, then dump the fruit into your hot syrup which is then heated to boiling and dipped out into jars.

Whichever method you use, the rest of the process is to fill the jars with

fruit to within ½ inch of top, and pour hot syrup in to within ½ inch of the top, as well. Then wipe the rim of the jar, place a hot, previously boiled lid in place, and screw down the ring firmly tight. Pints of pears are processed for 20 minutes in a boiling water bath, which covers the jars by at least 1 inch. **Be absolutely sure that the jars rest on a rack above the kettle bottom.** If they do not, they will usually crack.

As with all canning, get a good canning book, such as the *Ball Blue Book, The Guide to Home Canning and Freezing*, available at many stores or through the Alltrista Corporation, Consumer Products Company, Consumer Affairs, 345 South High Street, Muncie, IN 47305-2326. I refer to my canning books every time I can, just to be sure. (And I've never poisoned anyone yet, unlike a few fast food joints I know of.)
— Jackie

I'm going to be butchering a multitude of rabbits soon. I haven't been using the liver when I've butchered 1 or 2 rabbits. But this time I've got a population explosion to deal with and it seems like a waste to feed that much liver to the cats. I'd like to make a liver paté, similar to chicken liver paté. My question is: can this be pressure canned? Salmon sized jars would be the ideal size. Have you done anything similar?

Karen Farmer
Prince George, BC

I haven't done rabbit paté, but I've made homemade bologna and corned beef, etc., and paté will can up just as nicely. I'd suggest using ½-pint or smaller jars, making a "one sitting" use out of a jar. You won't be using a quart at a time, and you don't want to ruin it by leaving it too long in the fridge.

Simmer the livers in just enough water to cook them without scorching. Add salt and any other spices to

taste. After they're done, put them through a food grinder or food processor at a fine grind. Then regrind the meat. If the texture pleases you, go ahead with the processing. If it seems too dry, add a bit of the broth from boiling, mixing well until the desired consistency is reached. Pack fairly tightly into small canning jars and add just enough broth that they were simmered in to barely cover the meat. Your jars should be filled up to within ½ inch of the top. Wipe the top and place warm, previously boiled lid in place. Then screw the ring down firmly tight. Process 75 minutes at 10 pounds of pressure (adjust pounds of pressure, if necessary, for all altitudes above 1,000 feet above sea level).

Check a canning book for further details of the canning process.

— Jackie

I am growing an herb garden for the first time this year and do not know how to harvest my crop, specifically basil. How many leaves can I pick off a plant before I've picked too many? And what happens once the plant has flowered? The seed packet said to harvest leaves until the plant flowers and, unfortunately, my lemon basil flowered while our family was away for a few weeks. Is it no longer edible? Plus, is there a proper way to preserve my harvested crop or should I just turn it all into pesto and freeze it? I seem to have many questions about something I thought would be quite simple. I would appreciate any help.

Joyce Lee
Charlotte, NC

Basil is a very forgiving plant, actually getting nearly weed-like with any care at all. I abuse my basil and it seems to like it. I don't pick leaves. When my basil is about a foot or so high, and I feel like it, I take kitchen scissors to it, snipping off the top inches, working my way down the

row I go, until all are done. (I don't prune weak plants so severely, but I let them recover and grow longer.) I then tie up smaller bundles of stems and leaves and hang them upside down in a hot, dark, dry place. I've used the attic, a hay loft, a travel trailer, and now our bunkhouse; anywhere will do. In a week or two, your basil will be crispy dried, yet still green. The darkness holds the color.

I usually rub off the leaves and store the basil in a glass jar with a screw-on lid. It remains good for months, even years, although it does lose a little strength over time.

No, your lemon basil doesn't become inedible after flowering. The reason your packet says to harvest before it flowers is that flowering is the first step to seed production, and the plant is told to "stop growing" and "start making seeds." I'd just whack off the top of the flowering plant and let it regrow. You can even use the leaves you've harvested. Some people don't like the appearance of the flower in the dried basil. I like it myself, but I've often been told I'm weird. (You might find pansies or nasturtium flowers in one of my summer salads, sliced cactus pads or cat-tail shoots in a hot dish.)

Of course, you can still use your basil as pesto to use fresh or freeze.

— Jackie

I wonder if you can enlighten me on the following subjects:

Black walnut trees. My property has several very mature black walnut trees. Is it true that you cannot plant anything (flowers or vegetables) within the dripline of the trees?

Quinces. I have a lot of old plantings of fruit trees and berries. I have two very prolific quince trees. The fruit is plentiful and relatively pest free. What should I do with them?

Pears. There are many old varieties of pear trees on my property. I've been told that some are pickling pears (very small, golf ball sized) and

others are larger but not any variety I recognize. All have been on the property for at least 40 years.

Seeds. Any information on hardy seeds that are pure (not hybrids) so that I may save and replant them year after year would be useful.

That's probably enough for now. I am in New York State. I'm trying to get my garden started this year and am looking for PRACTICAL advice, so I came to you!

Terry J. Ziellinski

Sounds like you've got a great place, Terry. So few places, today, come with mature fruit and nut trees.

Black walnuts *do* sometimes prevent plantings beneath them from doing well. But one thing I've learned is that there's no *always* and *never*, when it comes to nature. While it's best to be aware of the potential problem, a person can always experiment a little and see what works in your situation. I would try to situate my garden away from the walnuts because they often do cause problems, but I'd do a little experimenting on my own (not going whole hog). I've seen many fine flower beds and even some vegetables grown beneath huge black walnut trees.

Quinces are one of my childhood favorites. My grandmother had a quince tree growing in our yard, and I loved to watch them grow and turn golden. And I couldn't wait until my grandma said I could climb the tree, picking them to make into preserves. I even liked to munch as I picked, even though they were juicy-tart.

You can make jelly, similar to apple jelly, but the following recipes are more to my liking:

Ginger quince jam

4 lbs. quinces
8 cups sugar
¼ lb. crystallized ginger root
2 lemons

Wash, pare, and core quinces. Chop in fine pieces, cook in moderate

amount of boiling water until tender. Add sugar, chopped ginger, and the juice and grated rind of the lemons. Cook until thick, stirring constantly. Pour into sterilized canning jars to within ½ inch of the top. Wipe the rims, put on hot, previously boiled lids, and screw the rings down firmly. Process in boiling water bath for 10 minutes. Yield: 6 half pints.

Quince apple preserves

Pare and slice apples and quinces; use half as many apples as you have quinces. For each pound of combined fruits use ¾ pound of sugar. Cook the quinces in boiling water until tender, then add the sugar and apples and cook until apples are tender, while stirring constantly. When thickened, pour into jars, and process as above.

Quince preserves

3 cups sugar
2 qts. water
7 cups pared, cored, quartered quinces

When preparing quinces, discard all gritty parts. Combine sugar and water in large kettle. Simmer 5 minutes. Add the quinces and cook until they're transparent and the syrup is almost jellying, about 1 hour. Stir regularly to prevent scorching. Pour hot into hot, sterilized jars, leaving ½ inch of head space. Process as above.

Your pickling pears may be sugar pears (which are small and very sweet) or they may be wild pears, which taste like, well...yuck!) You'll just have to wait to find out by tasting.

With pears, you can make canned pears, cinnamon pears, pear marmalade, pear butter, pear conserve, mint pears, pickled pears, pear preserves, pear relish, fruit cocktail, and much more. I also dry sliced pears to eat like dried apple slices for snacks.

Seed saving is not only a good idea on a self-reliant homestead, but it's *fun*. I've been hooked on heirloom Native American (and other) open pollinated varieties. These old, non-

hybrid vegetables were saved because they are hardy, taste good, and store/process very well. Today, with hybrid seeds and genetically altered varieties, these old-timers seem outmoded. But sometimes new is not better. With expensive hybrid seeds, you can save seeds, but those seeds do not reproduce the parent plants. You may get edible crops, but they may be more foliage than fruit or produce irregularly. And as for genetically engineered crops, well, we won't even go there. (I don't want to eat corn with fish genes.)

There are several fine books on seed saving available to you. *Backwoods Home's Bookstore* carries one, and others are available through any local book seller such as Barnes & Noble.

Seed saving is interesting, easy, and practically addicting. And it completes the gardening circle. It doesn't make sense to buy garden seeds, year after year after year. That's a lot of money that could be better spent elsewhere.

— **Jackie**

I just read your article on saving seeds and found it very interesting. My question is this: I live in the Alaskan Interior and have a 85-90 day growing season (hopefully!). Are there vegetables other than lettuce that I can get mature enough to save seeds? The 85-90 day growing season is in good years—many years it's less. Also, is there any way to put up broccoli other than freezing it? Can I can it? Dry it? We don't have electricity, so we don't have an electric food dryer.

Carol Kumher

We've always lived (up until now) where you were lucky to get a 90-day growing season. Our last Montana homestead was at 7,400 feet, and we had snow every month out of the year. (Bob went snowmobiling on a foot of new snow one June 27th.) But, yes, there are several veggies

that you can grow and mature enough to save seed from (using a little tweeking).

I've grown and saved seeds from the following: tomatoes, peppers, green beans, yellow wax beans, carrots, rutabagas, broccoli, spinach, onions, several Native American squash varieties, zucchini, acorn squash, cucumbers, and sometimes sweet corn, melons, and cantalope. And we did it without electricity or a several thousand dollar greenhouse setup.

I choose all varieties that are not only open pollinated, but quick growers. Then, I start (of course) all my tomatoes and peppers indoors, in flats, which were transplanted to larger pots in early May. I also start about 100 kernels or corn in homemade peat pots three weeks before our last frost date in the spring. This makes our "seed corn" garden plot, in addition to corn we direct seed into the garden.

I also start several squash, cucumber, pumpkin, and melon seeds in large peat pots about three weeks before decently warm weather is due.

Broccoli for seed is started two weeks before I seed my "regular" broccoli in trays, indoors.

Carrots and other biennials are simply stored in a root cellar, over winter, then replanted in the spring, as they make seed the second year.

I use wood poles to erect a long "tent" over a section of the garden, in which I plant my "seed" tomatoes and peppers. Inside, I plant the individual plants in Walls 'O Water. These *really* give you a boost on the growing season and dramatically increase the growth of the plants inside.

The tent is closed up during the night and cold spring days, acting as a greenhouse. It is opened during hot days for ventilation. When your regular garden tomatoes and peppers are a foot tall, and just beginning to flower, your tented plants, kept in Walls O'

Waters until they grow out the top, will be three feet tall and already have many tomatoes set on them.

Choose one or two of the best plants to save seed from, and don't pick the fruit from them, letting the tomatoes and peppers mature on the vine. They *will* make it in most years. (Your tent can be left in place all summer and then used to protect the plants in the autumn.)

You can also put a broccoli in that tent to ensure seeds.

The started-indoors corn, cucumbers, melons, squash, etc., will usually mature enough to save seed from, with a little help from mulch (when the soil is warmed up enough), Walls O' Waters, and plastic tents if need-be.

You'll have to experiment around a bit. I did. But you definitely *can* grow an abundant garden *and* save seeds nearly anywhere. — Jackie

I was wondering if you had a sourdough starter recipe that was easy and with no artificial ingredients. I've been searching for a good one and so far have turned up ones that used instant potatoes and other things. Hope you can help.

Cyndi

You bet. I'll even give you my grandmother's favorite sourdough starter and a couple of uses for it. Hope you like it as much as we do.

Sourdough starter

2 cups flour, mixed with 2 cups lukewarm water and 2 teaspoons of dry yeast. Place the mixture in crock or glass bowl—no metal. Let it stand in warm place 48 hours. When very bubbly, cover and store in the fridge. Cover loosely with wax paper so it doesn't dry out, but so it can breathe a bit. To use, set out at room temp about 18 hours. Each time you use any, add equal amounts of water and flour and you will keep it going for years.

Sourdough pancakes

| |
|-----------------------------|
| 1 cup starter |
| 2 cups flour |
| 2 cups + 1 tsp. warm water |
| 1 tsp. soda |
| 2 egg yolks |
| 1/3 cup milk |
| 2 Tbsp. sugar |
| 2 Tbsp. melted butter |
| 2 stiffly beaten egg whites |

Mix the starter, flour, and 2 cups of water and let stand overnight in crock or glass bowl. Add 1 tsp. soda in 1 tsp. warm water, 2 egg yolks, 1/3 cup milk, 2 Tbsp. sugar, 2 Tbsp. melted butter. Beat well, then fold in 2 stiffly beaten egg whites. Let stand 10 minutes, then fry on griddle.

You can also make sourdough starter using potato water and yeast. (Potato water is the water left over when you boil potatoes; some folks add a Tbsp. of mashed potatoes to "fortify" the starter.) Another starter is made with milk and flour only: 1 cup of milk is set out for 24 hours and mixed with 1 cup of flour in glass jar or bowl. It is left uncovered in a warm place for 2-5 days. If it tries to dry out, add warm water. It is then ready to use. No two sourdough starters are exactly alike, and like fine wines there is an art to making and using them. Sometimes luck plays a part, especially if you are not supplying the yeast but depending on "wild" yeasts to find your starter-in-progress bowl. — Jackie

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No kidding! A plug and play solar electric system all in a container, ready to ship

How about a “plug and play” solar electric system, just about as easy to set up and use as a “plug and play” computer peripheral. That’s what Cliff Titus, owner of Solar Discount of Mayer, AZ, builds and delivers anywhere.

“We build, assemble, and place a complete PV system in a container,” Titus says, “and we ship it from here, in Mayer, Arizona, to the customer, wherever he or she is. The system is delivered ready to operate right out of the container.”

The container is set in place on the customer’s pad, pointing in the proper direction toward the sun. There’s a breaker panel on the outside of the container where the electrician hooks it up to the home.

“All he has to do is hook it to the AC breaker,” Titus says. “It’s a true plug-and-play type system. We even send a guy along who spends at least one full day teaching the new owners how to operate it.”

A typical system runs \$20,000 to \$35,000, and they all have backup generators.”

Titus himself has been totally off the grid for three and a half years now, using photovoltaics and a small wind generator. Most of the electricity comes from the PV system, but he figures he’ll need the backup generator about 50 hours a year and, at that rate, it’ll last at least 20 years.

Prior to getting into the energy business five years ago, Titus had spent 20 years as a contractor for heating, ventilating, and air conditioning systems. He thinks most people get interested in alternative energy because, like him, they “want the independence” it offers. He also says cost, not environmental concern, drives most customers’ decisions to buy a solar system. “They have a site where they want to live and getting grid power is outrageously high, if they can get it at all. It all comes down to dollars and cents. Environmental concerns play only a minor role.”

He is skeptical of people who sell alternative energy products to help the environment. He says, “They say they are going to save the world, but I think they’re all driven financially. Even environmentalists, when it

comes down to money, are going to pollute. I’ve seen this personally.”

Politically, he classifies himself as “very, very, very, very conservative Republican, almost off the scale.” In 2000 he says he voted for Bush.

He adds that he is radically in favor of the *Second Amendment* but says “most Americans have no concept of what it means.”

His philosophy of life: “I think we have to maintain a healthy independence, but try to stay involved politically, even if it’s a losing battle.” He adds, “I’m pro-life, and our *Constitution* is not negotiable. I’m a constitutionalist.”

Titus’ business, Solar Discount, is located in Mayer, Arizona, near the home of frequent *BHM* writer, Marjorie Burris who just bought a solar system from him. She’ll write about it in a future issue. You can peruse and even order from his website: www.solardiscount.com or order on his toll free line at (877) 632-4219. You can contact Cliff directly through his e-mail at cliffslrdisc@starband.net or call him at (928) 632-4209. Δ



One of Solar Discount’s units



Cliff Titus at work



North view through 8' roll-up door

Homemade Toys!

Easy to make, fun to play with, and *great* for gifts!

By Cynthia Andall

The garden needs planting, animals need feeding, Baby needs to nurse, and that chicken coop simply has to be finished but, there are three children who want you to drop everything and have some fun with them. What you need is more time. Traditional homestead toys are the only answer. Quick, simple, economical, and tons more fun than Nintendo or the "Net."

Whimmy diddle

Chop and whittle three pieces of firewood. The main piece should be about seven inches long, and so should the rattle stick. Propeller



Finished whimmy diddle, above. Whimmy diddle in use, below. Note the fingers bridged over the notches to apply pressure and make the propeller spin.

should be a thin sliver of wood about 1½ inches long by about ¼ inch wide with a hole drilled in the center. To find the center, balance the prop piece on the blade of your knife. Loosely nail propeller into tip of notched wood as in photo. Notches should be made on about 3 to 3½ inches of the whimmy diddle stick. The measurements are not very important. In fact, the most important aspect of this project is that the propeller is very light and swings freely on its nail.

To use your whimmy diddle simply rub your rattle stick quickly up and down the notched surface on the propeller stick which needs to be horizontal. The trick to making it work is in applying finger pressure to the sides of the propeller (notched) stick while rubbing it. With practice you can make the propeller change direction with only a slight shift in pressure. It looks like magic. The firewood whimmy diddle is a very simple project and a good one for a young person, with responsible, knowledgeable, adult supervision to practice knife control on. Successful



Garden felt board

results can be had with forest-found sticks and commercial dowels as well.

Braided doll

Wrap yarn 40 times around a book or something else that works. Size of object is unimportant. A bigger book will make a bigger doll. Tie with contrasting color just in from one end of a bundle. This creates hair. You can choose the length of hair by tying bundle closer to or farther from the end. Wrap same color around a small object for arms 15 to 20 times. Tie contrasting color yarn tightly around bundle just in from each end. This creates hands. Open up the body bundle in about the center and insert arms through. Tightly bind with contrasting color over the chest and



Braided dolls

abdomen area. If the doll is a girl, you're done. If you wish to make a little boy, separate two legs and bind tightly at the ankles.

Garden felt board

This is such a fun and simple project that you'll wonder why you never did it before. Simply cut the piece of finished (smooth) hardboard or plywood to the dimension of a full piece of felt. The size of felt varies so you'll have to check locally. Use a garden color, green or brown, for the board and from there cut out flowers, vegetables, plants, sky, sun, birds, animals, barn or house, forest, or wild animals. Use your imagination. It is amazing that even very young children (one or two years old) love this project. By adding a frame around board or putting on a different color background this project can become significantly more elaborate.

Hazelnut babies

Epoxy two Hazelnuts together. Be sure that the clear brown part of the nut lies where the face will be. Let the nuts sit overnight to cure. Cut felt of any color to one by three inches for the cloak, and a piece of yarn or cord for the scarf. Assemble so that they look like photo. At this point a face can be added with the felt tip marker if desired. For older children (four and older) most of this work can be self-directed. These make fantastic gifts and really cute Christmas decorations. These are fairly traditional Scandinavian craft, although today they are mostly made with wooden beads, which work admirably as well.



Hazelnut babies

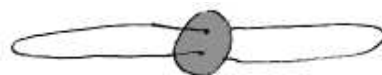
Buzz toy

These are probably the most familiar of all the traditional homestead toys. Many of us will have enjoyed



Elliot Andal plays with a buzz toy

button-on-a-string as a child at Grandma and Grandpa's. They are also simplicity themselves to make and take but a minute. You need a 36-inch length of string or heavy coat thread, and a coat button of a fairly large size with two or four holes (not the type with the loop or shank on the back). Thread the button on to the strings like this:



That's it, you're done. Grasp one end with each hand, fingers through the loops, and swing it until the cord is twisted. Now, rhythmically, but gently, pull and let slack, pull and let slack. If you're doing it correctly the toy will start buzzing and the rhythm will continue. If not, keep trying. Instead of a button, you can use a 1/8-inch plywood disk or heavy cardboard disk. The more mass the disk has the heavier the cord can be and the longer the spin lasts, so try experimenting.

Now, chores are done, children happy and content, it's time for you to play. Try all of these toys and experience a very basic joy, both of playing and of providing your very own entertainment. Δ

Letters

(Dear Readers - Thank you for writing to Backwoods Home Magazine. The opinions and suggestions we receive from our readers are very important to us. We regret that we are no longer able to print or individually respond to every letter received due to the volume. We do read every letter received, and pass them along to the editor or writer concerned. We print a selection from our mail that best represents the views and concerns of our readers.

— The Editors)

American Survival Guide readers

Thanks for picking up my subscription from ASG. WOW. I read the Sept/Oct issue from cover to cover. Your publication is more than 95% interesting. Great editorials. Thanks for the great subscription offer which I have taken advantage with this note.

James L. Larson, Salinas, CA

Thank you for picking up my subscription from SRJ. I have renewed my subscription to your magazine to make sure I do not miss one as well I have enclosed an extra \$5 (not much) to thank you and help with the bills that came with buying my subscription. Thank you again and I hope the subscription buyout pays off.

Adam Moser, Topeka, KS

I've ben a bit tied up as of late, but I finally got a chance to stop and say "Thanks" for picking up American Survival Guide subscribers! I wondered why I got an extra issue of Backwoods Home, and then the second time I got one the reason was clear! I'm sending my two extra copies to my parents. My stepmom is considering subscribing.

Thank you, thank you, thank you.

Dorothy Bellipanni
horsewoman44@ec.rr.com

Hey, how about a short ditty in the next issue about why ASG/SRJ folded. I was a longtime subscriber & before

that was just buying it in stores way back in the early 80s. I even kept most of 'em.

Keep up the good work on your mag.

Daniel Knight, Mt. Vernon, WA

They folded because they went politically correct and a lot of their readership abandoned them. For a while, they were buoyed up by the Y2K panic, but when Y2K fell off the cliff, ASG was burned for about \$100,000 by advertisers who went bankrupt. In the end, though, it was a reader revolt. —Dave

I had subscribed to ASG for a loooong time (approximately 20 years). The following name changes were on the covers: Survive, Survival Guide, Shooters Survival Guide, American Survival Guide, and most recently my worst disappointment, Self Reliance Journal.

I initially was upset when I received your magazine thinking that I was forced to take on your magazine as opposed to getting a refund since I was not getting what I had paid for.

However I am now pleased with most of what I have read in your magazine and I appreciate the fact that you took the initiative to buy out the remainder of my subscription. I hope that you send me a renewal notice at the appropriate time.

The reason that I never ordered your magazine in the past was that I thought that it was only about the backwoods not as diverse (guns, wells, 4x4s, freedom, etc...) The name never indicated anything about preparedness or emergency preparedness. Perhaps there should be some kind of hint added to your name to help get you a more diverse group of concerned citizens. Being a Florida

resident that had gone through Hurricane Andrew the information that you have is great but your name does not let anybody know.

Jim Benson was great and dedicated. I hope that I get to see his name in your magazine.

Cliff, Boynton Beach, FL

Jim is a great guy. I've invited him to write for BHM. He started an online publication at www.modern-survival.net —Dave

Here's one from Survival Guide—your magazine is better—"My view" was dead on!!

Keep it up.

Robert Rutley, Roswell, NM

Just a short note to thank you for picking up ASG's subscribers. I have subscribed to ASG from the first issue. Although the quality had gone downhill, I still wish Mr. Benson good luck.

I really enjoy your magazine. The addition of Massad Ayoob is a major plus. He is definitely one of my gurus! I am a LFI-1 graduate from October 1986. Any of your readership who can attend one of Ayoob's courses, should.

...I wish you, your family, and all of your like-minded readers the very best.

Stephen Talpai, Willow Springs, IL

I received my first issue of BHM July/Aug. 2001, No. 70, and am thankful to finally get some information on the now defunct SRJ. You would think the publishing company would take the time to inform its subscribers of what's going on, instead of passing the buck (or not) to you. However, thanks for catching it!

*Anyone who takes such a large cash gamble as you've done deserves at a minimum a large **thank you** from all former SRJ subscribers. From what I have read so far, I'd say we all got the good end of the stick. I am enclos-*

ing \$29.95 for your 15 selected issues, and sending soon my subscription for 2 years.

Charles Selph, Houston, TX

Terrorist attack on the Trade Center

Well, I ripped up a shirt and sent the kids off to school with black wristbands today. I guess that may be stupid and the things look like hell, but I believe the tears that fell while I was trying to explain to them why we should all be in mourning made an impression.

I must be the world's biggest sap because while I'm generally pacific, I spent the day between bouts of crying imagining what I'd do to those murderous bastards if I had one in front of me. You don't want a visual image. I also wondered what effect this (what word do I want—tragedy is what you call it when your cat gets hit on the road) this event will have on our freedoms. It seems that American people always take the wrong message from shit (yeah that's a good word) like this. Or to be more precise, the American people cling to what the leaders of the human flock tell them will make the "shit" better. Guess what Dave. You're the leader of my part of the flock and you're the one I and many others will be looking to for words of wisdom. You and John and yes, Mr. Mac. What do YOU think the aftermath is gonna be and how do we protect ourselves from those who will turn this "shit" into another battle on the war against true freedom and democracy.

I'm afraid I'm guilty of intentionally suffering from the dreaded cranial rectumitis...I peek out every so often and voice my outrage where it doesn't matter a bit then go back to my dark comfy hidey hole and hope things get better. Maybe it's time to do a bit more. The tears have run their course mostly anyway and it's time to let the anger that's simmering find a sound, meaningful outlet. I

think of the signatures on a piece of paper two hundred and some odd years ago that would literally have put the signers necks in a noose. Hancock, Adams, and the others endangered their lives to give me freedom and also to say that I don't have to tolerate the murder of thousands of my civilian brothers and sisters to benefit from that freedom.

Am I making any sense at all? I just don't know what to do other than the admittedly empty gesture of the arm-bands.

Lynn Rush, Plymouth, IN

Applause

I have been reading Mother Earth News and Organic Gardening for about 8 years now and while I have enjoyed them, there is something not quite right. I am becoming increasingly disappointed in the content of these magazines. Especially M.E.N., (I know this is no new news for you) is getting more and more focused towards the rich urban folks who are building their 2nd homes in the "country." They are catering to their subscription bottomline, as that's where the \$s are. Those of us who are truly attempting to live the lifestyle are outnumbered, but don't give up. I have a feeling we'll be joined by a lot of Californians shortly.

I live in rural Alaska where my husband and I try to live as simply and self-sufficiently as possible. An old Alaskan salt tossed me a back copy of your magazine a few months ago and I was hooked! Why, oh why, didn't I know about you before?! I took out a subscription immediately and now I can hardly wait to get each issue. I even peek at the website to see what treats are in store in the upcoming issues. A new small goal of mine (as a newly hatched freelance writer) is to be able to submit something juicy to you in the future.

Thank you for all the informative articles on home food preservation, neat things to build and create, and I

feel like I am back in social studies class again reading John's stuff on the "The coming of the American dictatorship"—(everything I've been suspecting and more!) Thank you and keep up the good work!

Katherine McLaughlin
Chenega Bay, AK

After seeing your companion advertisement in Countryside Magazine, I spotted BHM in my local store (which no longer carries it. I bought it and have been hooked ever since.

I have never read a magazine with so many different areas of interest. The articles on "The coming American dictatorship" has confirmed all that I have felt and resented for some time. The majority of the American people won't get off their couches and remove their thumbs from the remote control. Quite simply, a majority of the American people are lazy zombies. They have lost the ability to think for themselves. Or, quite frankly, they are too lazy to think for themselves. How sad, that Americans, once the most independent people in the world, are now, the least. I, myself, have been taking a good look at my life and I have been reconsidering my consumerism lifestyle. What BHM advocates is a conservative lifestyle that I grew up with. I have decided to return to those roots and simplify my lifestyle.

Thank you for not being afraid to uphold the "Bill of Rights" and our Constitution." Keep up the great work and here is my \$21.95, so I can continue to expand my horizons.

Tresa Lamb, Tulsa, OK

While vacationing with my family in Auckland, New Zealand, Rangitoto Island, Waiheke Island and the Devonport Peninsula, I brought along Backwoods Home Magazine July/Aug. 2000 issue and came to realize that the New Zealanders love home dairying, homemade jerky and solar roofing (in some of their more

modern homes). This magazine is perfect for the blokes "down under" and I gave my issue to our tour guide. He was thrilled to have your magazine in his hands. He said it would be very useful for him! Keep up the good work!

Paul Dale Roberts, Elk Grove, CA

Just a note to tell you how much I enjoy your publication. It is great to find a magazine that so closely reflects my thoughts on a number of subjects including individualism, the Second Amendment, the Constitution and nature. I do not seem to fall into the typical classifications...and your statement in the latest issue about being conservative and yet supporting what are sometimes considered liberal ideologies rang so true for my own life.

Jeff Dantré, jeffdantre@yahoo.com

I was browsing at the bookstore the other day, checking out the new magazine, when I discovered yours. I read it from cover to cover. I have been waiting for a magazine to come along that discussed independent living and how to be self-sufficient. I also liked the fact that your magazine does NOT stay away from controversial subject matter ("Of kids and guns," "The coming American dictatorship."). One request—are you going to have more articles available on thrifty living, or various ways to pinch pennies? I've been looking for recent articles available to help me learn how to save money and to recycle more of my everyday products that I use creatively. (If you can give any suggestions on some other magazine/websites that y'all advocate on this I would appreciate it). Thank you for the great magazine.

Leslie Waller Jonsson
Charleston, SC

We have had many articles on thrifty living & we'll have many more. —Dave

I love it...I love it...I love it! and my first introduction to the magazine was by accident at a library in New Jersey where I used to live. Fortunately, I also found it in my local library where I now reside, Bellows Falls, VT. But since I want my own copies, I subscribe...why not do a massive PR with libraries, hunting clubs, conservative group magazines, vets magazines, Scouts Explorers' clubs, Audubon and other nature groups, Sierra Club, etc. They seem like good targets! I've had trouble getting a lot of off-beat magazines I always look for—with the reason that "the demand isn't there"—who can prove it. Meanwhile, good luck with whatever direction you take.

archer@sover.net

I just received my first copy of your magazine, and am very pleased with it. So much that I am sending a list of friends and family names in your offer in #71 on the back of the front cover. I consider it the best of all magazines I have read. Am including a dollar with every name I send and I am betting that it will help your subscription list.

D.S. Ellis, Sultan, WA

I am writing to tell you that it was a pleasure doing business with Backwoods Home. Not only did I wake up today to find my first issue of the magazine, but later in the day the post office delivered my books that I ordered at the same time. I never guessed that they would all arrive on the same day.

I also congratulate you for being able to fix the mistake I made in my order. Thanks again for that.

Finally I want to commend you for one thing that many web sites do not offer. The ability to send payment by mail. This is a really important function to me as I do not believe in the use of credit cards. Too many web sites only let you order with plastic. Plastic does not go with my way of life. So full points to you!

The magazine is a wonderful link for me. Spent the last seven years homesteading in northern Ontario, Canada, but am having to live in the city to take care of a sick friend. Your publication is linking me to where my heart is home, and helping me plan for my return next year to a new homestead.

To all the staff at Backwoods Home, keep up the good work. I found some of your anthologies a few years back, the first three of them, and had wondered if over time your publication had sold out like many have over the years. I can see that you have not, and I am pleased to be a reader of your great publication.

Peter Mueller
northboy@sympatico.ca

I have read all the letters from past ASG subscribers—all I can say is I echo **every** comment—especially your editorial about McVeigh. I love your magazine.

I love "Ayoob on firearms", "Good life starts with a garden," and "Earth sheltered homes and structures." I got a real laugh out of "This coop is for the birds"—especially the names given the chickens. You can bet I'll renew.

Ms. Mary Stuman, Amarillo, TX

Solar commentary

Although I live in the country, not the backwoods, I thoroughly enjoy BHM's thought-provoking articles and am very pleased to see that you have brought Claire Wolfe on board.

Speaking of thought-provoking, my thoughts were particularly provoked by Dave's commentary in the July/August issue (No. 70), which at one point dismissively lumped environmentalists in the "bigger government types," "socialists," and other enemies of gun rights and libertarianism. Apparently you, too, have been sucked in by the corporate media's disinformation campaign and divide-and-conquer strategy. Government and its corporate shot-callers are able to continue whittling away the

rights of individual citizens largely because we have allowed ourselves to be turned against each other, when in fact environmentalists, hunters, and backwoods residents are natural allies. Very often they are the same people.

Environmentalists are folks who value wilderness and the outdoors. Say, doesn't that describe BHM's readers? When wilderness is bulldozed or polluted into extinction, there will be no more backwoods for any of us to live in or visit. When the multi-national corporations control the world's food supply through patented genetically altered crops, where will those who refuse to toe the corporate/government line go for seed stock?

For the record, I am a member of the NRA as well as the Sierra Club, which is neither anti-gun nor anti-hunting. In fact, the July/August 2001 issue of their magazine, *Sierra*, features an article by a fellow who established his backwoods home in northwestern Montana largely because of the bountiful hunting he is able to enjoy there.

Let's wake up and quit sniping at people who are more on our side than otherwise. Corporations have hijacked the rights that the constitution intended to guarantee to individual citizens, and government more often than not is busy protecting corporate rights while ignoring those of individuals. I consider the right to keep and bear arms no more and no less important than the right to breathe clean air, drink clean water, and eat uncontaminated food. I am a libertarian environmentalist, and I am not alone.

Michael W. Woodward
Interlachen, FL

Ginger beer

Greetings from England!

You may well be interested in this recipe for ginger beer, given to me by a friend some time ago. It's quick and

easy to make and is a lot less bother than the old-fashioned ginger beer that used to be so popular.

Pam's ginger beer

12 cups hot water

12 cups cold water

3 cups sugar

4 tps. powdered ginger

1 tsp. tartaric acid

juice of 2 lemons

18 sultanas (3 per bottle)

6 one-liter bottles with screw lids (plastic soda bottles ok)

Mix all ingredients, except sultanas, and place three sultanas in each bottle before capping. Pour liquid into bottles and cap. Leave 1-2 weeks before drinking.

Amazingly this tastes pretty good; the sultanas ferment and give the brew its fizziness. I haven't experimented to see what effect different amounts of sultanas would have. Enjoy and keep up the good work!

Kostas Jarvis
webmaster@jarvisnet.com

Dictatorship series

The Coming American dictatorship series has been very insightful, but with the article on jury tampering you have gotten to the heart of the problem. I call it jury tampering because that is exactly what the government is doing. Trial by jury, as guaranteed by the Constitution, is effectively null and void due to the "rules" of the court. Judges who have taken an oath to uphold the Constitution routinely dismiss all prospective jurors who have the audacity to admit they understand the rights of a jury. The jury was our last line of nonviolent defense against a government gone mad. That line is gone. What choice are they leaving us?

Another excellent facet of John's series is the way it is written without conspiracy theories. Without right wing paranoia. Just a plain and simple stating of the facts. All of the factual information contained in the series is already out there, but most

of it is clouded with far-flung conspiracies, calls to racism, or claims about this being a Christian government. It seems that only the loonies can see where the country is headed. It's really great to have this information all in one place written from a level headed point of view. I do wish BHM could afford to make this entire series available in print for bulk purchases. We need to be passing this out on the street corners of America.

I just watched a 15 year old boy get sentenced to prison and branded for life as a sex offender because the judge would not allow informed jurors on the jury. Four 15 year old boys accompanied a 14 year old girl into the girl's bathroom after school. Accompanied, not forced. In a bathroom stall three of the boys fondled the girl through her clothing. At the least the girl willingly allowed this. The boys claim she encouraged it. The one I saw stand trial stood at the door and operated the light switch. He didn't even get his hands on the girl. But he was tried as an adult instead of a juvenile. The judge should never have allowed that, but he did. Then the judge dismissed all prospective jurors who said that they might disagree with the law. The law states that the 14 year old girl is not old enough to give permission for this activity. So her consent does not matter. If it matters to you, a prospective juror, then you are off the jury. Now if the boys had been men, that law would make sense. But the law does not make sense when the boys are really no older than the girl. The most perverted thing happened while the jury was out deliberating the case. The judge said, "If they vote their conscience, they'll find him not guilty." What a hypocrite. The jury found him guilty because the judge only allowed sheep to serve on the jury. It's tantamount to Pilot washing his hands after the trial of Jesus. What future does this boy have now?

Name withheld at request of sender

Please allow me to register my mild surprise.

This in regard to John Silveira's "The coming American dictatorship" (excellent! brilliant!) Part V, in the No. 70 issue of Backwoods Home Magazine, in which John in referring to the major media outlets, when being asked by Dave why these outlets neglect to inform the public (in this instance on the true nature of EOs), John offers: "Because most of them are unaware of it,...etc., etc."

Come on, John, I know you can do better than that. I've seen you at work!

Or, with so lame an "explanation" as this one, with knowledge and skill as formidable as yours heretofore, were you merely having "Mac" have an unusually lazy day?

*Surely you know and I'm sure that you do, John, that the mainstream media do **not** neglect to inform the public because they are "unaware"; they "neglect" to inform the public because they are controlled. Soviet-style controlled. Willingly. Because they have quite literally sold their journalistic souls.*

And having sold out to the highest bidders, the mainstream media/"free" press can't anymore inform the public, even if anymore they were inclined to.

So please do not have "Mac" make such a mistake again—or deny him lunch til he rectifies it!

Thank you as always BHM for otherwise being consistently "spot-on," keep on holding on tight, to your own journalistic integrity!

Peggy Abts, Solon Springs, WI

The "best I've read"

*This is my second issue of BHM and it further convinces me of the quality of this publication. I have read hundreds of "survival" magazines, subscribed to many and even write my own. I like people with courage and intelligence. Your articles are written for doers, not sitters and **explain***

how-to. BHM is about the best I have read. Wilderness Way is as good but is on a different subject. How about more articles similar to the "executive order" one?

Can you use the subscription check I sent you as a renewal whenever my ASG runs out?...

I brought an 18' sloop here from Lake Erie, caught snappers and rattlesnakes and sharks, scrubbed boat bottoms, hunted sunken galleons (and found some) on the way for spending money and killed a jaguar with sword & spear. I had drunk too much or I never would have taken that challenge. That thing walked up, looked at me, buffed its claws a couple times, smiled, and said, "Dinner!" A friend had hunted cattle-killers in Argentina for big ranchers and told me how to take it. I've always been "in" pioneer/minimal-style living and still am (sometimes). When a kid, we would go out for weeks with only what we could carry: a bottle for water, a bag of ground grains, maybe salt, a blanket, a knife & digger, a pan or pot, and a gun or bow. We could eat only what we got that day. I also had a small seine since minnows are handier than bigger fish. The blanket had a slit in the center and was blanket, serape, carry-pack, etc. I'm hunting a few acres now so I can get out of these big cities. Did you pick your area or were you born there?

Dorothy's chicken house is neat. The only thing I might do different is have two pens and alternate weekly so greens could grow well, and maybe corrugated metal so sparks wouldn't set it on fire. some fine sand available increases lay, as does morning sun in the house. I never thought of buying mature hens. Aren't many "burnt out" before commercial growers sell them? Diatomaceous earth rubbed into feathers or hair kills fleas, etc.

If I ever build another home, I will have water, gas and power (and maybe antennas) run through

exposed 1" metal water-pipe run along the walls and ceils, each painted a different color, like when I was a kid. Easier installed, repaired, redone.

Paul Doerr, Fairfield, CA

Hydro series

Congratulations and thank you for your inspiring series on building a pelton type hydro electric power plant. Michael Hackleman shows his stuff with the details he goes into and really shines with his inventiveness and fabrication of parts for this project. (Bore sighting a pelton wheel, I love it!)

You have kept your promise to publish a comprehensive do it yourself article(s) for a complete home site hydro electric system. Now I'll keep my promise. Enclosed please find my check in the amount of \$91.95 for a 5 year subscription to your indispensable magazine.

I also promised to tell a friend about Backwoods Home Magazine so here goes.

For those of you who have recently joined the Backwoods Home family from American Survival Guide, you couldn't have fallen (risen?) into better hands. And if by chance you are contemplating a home built hydro system for your homestead, I urge you to back order Backwoods Home issue #67 through #70. You will not regret the order or your subscription to BHM.

Mike Ing, Lakehead, CA

Solar and wind power

I first would like to point out how much I enjoy Backwoods Home.... You all are doing a great job.

I was trained by U.S. army as a combat engineer in 1968 & 1969. I was one of 40 best combat engineers in Vietnam and in the world.

I have 20 years heavy construction/building at Mt. St. Helens dams after 1980 when the mountain went off.

In the state of Washington I built Washington freeways, dams, bridges, local roads as well, runways. In military we had to build whatever was needed, from living, to fighting from, to every type of explosive.

But when it comes to solar and wind and water...question...how does one really find out who has the best system on the market. Would you please help me with this problem.

Ed Wood, Kirkland, WA

Self-reliant lifestyle

I've ben a fan of your magazine from the early days. It's very refreshing to find a publication that gives an alternative to the liberal drivel constantly spewing from the "mainstream media outlets. I particularly enjoy the articles on the Constitution, the Founding Fathers, and your editorial columns. I have a small cabin in the hill country of northern Pennsylvania with hybrid wind/solar electric power and wood heat and have been living the self-reliant lifestyle for quite some time. I find meeting and overcoming the challenges of self-sufficiency to be very rewarding. Keep up the good work!

R. Clark, Fassett, PA

From suburb to country

I just wanted to take a minute to say how much I've enjoyed reading the articles on your magazine's website. So much so, in fact, that I've decided to subscribe so that I can actually read an entire issue of BHM for once. It's money well spent. As a San Diego suburbanite looking to make the "big move" within a few short years, your magazine has been, is now, and will continue to be a great source of information—a source that is helping my family and me properly prepare for a move toward self-sufficiency. Indeed, we've already begun the transition despite our suburban location. Location sure helps, but the principles involved in self-reliance are where the rubber meets the road, and

that is what makes your publication so useful—much of what your magazine instructs can be applied nearly anywhere if one has the simple desire to try.

Doug Park, San Diego, CA

Soap without lye?

Due to being retired and on a very low income, we will never be able to live as far out or as self-sufficiently as we would like, but we have made many changes in our lifestyle. We eat healthier and have found many helpful articles in your magazine.

One thing I have never seen in your magazine is a recipe for soap which does not use lye. Is it possible to make soap without lye? If so, would someone send me a recipe? I will trade my recipe for homemade dog biscuits. These biscuits are healthy, natural, and your dog will like them better than anything in the stores. They have a 3 month shelf life but your dogs won't let them sit that long! If you don't have a soap recipe but want the biscuit recipe, send me 2 first class stamps and I will have it in the return mail.

Keep up the great magazine.

Mary Ann Gove
4160 Purple Sage Trail
Cottonwood, AZ 86326

We found 3 soap making articles in our archives: in Issue No. 34 (contained in our 6th year anthology, in Issue #10 (in the Best of the First Two Years), and in Issue No. 65. Unfortunately, all use lye. Can anyone out there help Mary Ann?
—Dave

Thank you

The chief purpose of this letter is to say thank you.

I had noticed your magazine on the rack at a local bookstore several times over the past year or two. I had never, I am embarrassed to say, purchased a copy, probably because it would have been a reminder of the

life that I wanted to be leading, and wasn't.

For reasons that are not germane to this letter, it has recently begun to appear that my wife Mary and I will be moving to Oklahoma later this year, to a country place we have not yet pinpointed on the map. In anticipation and in honor of that fact, I allowed myself to buy the July/August issue of Backwoods Home Magazine last week.

You have no doubt anticipated what I am going to say next. Reading your magazine was like coming home—except that this time I came home to a "family" who have chosen to be family, people who have done some serious thinking about what the world has become and what they can do to live lives of honesty and integrity in spite of that.

I had come to believe that I was all alone, thinking what I think and feeling what I feel in the midst of four or five million people who to all appearances find nothing unusual or wrong about the concrete-and-steel nightmare that our "leaders" and "leading minds" choose to call the Indispensable Nation poised proudly at the End of History. Reading Backwoods Home Magazine was a refreshing dose of reality, and I can't begin to tell you how much good it did me to know that there are people out there, such as yourself, who see what I see and, even more importantly, dare to speak the truth that they have seen...Reading Backwoods Home Magazine last week was like standing out in the first life-giving rain at the end of a long drought, face raised to the heavens, whispering "Thank you" over and over again to whoever or whatever is out there at the other end of the lines of communication and knowing that the circle has come around and everything is going to be all right.

J. Douglas Hand, Wyandotte, MI

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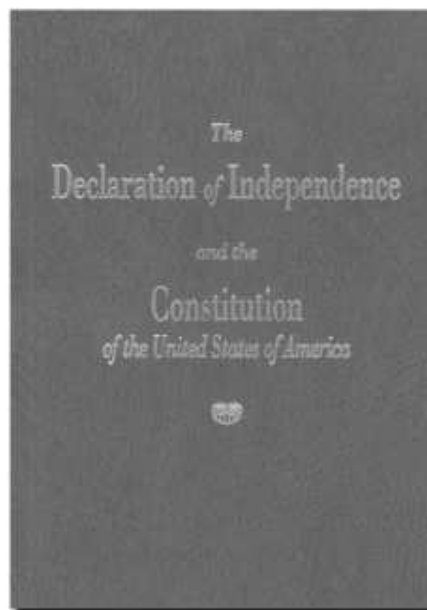
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The last word

Money *can* buy Happiness

The results are in: money can buy happiness, but it doesn't come cheap. Not only that, the amount of happiness your money can buy can be measured.

I know this runs contrary to everything we've ever heard since childhood about money—"It can't buy happiness, it can't buy health, and it can't buy love." But the facts don't support this.

First, according to surveys, the rich are more optimistic about their lives. Optimism is a major factor in happiness.

Second, medical evidence shows those with more money live longer, healthier lives than those with less. There are always the stories featuring the rich kid who rebelled and died of an overdose or the monied uncle who had a heart attack while living the high life, but on average, those with more money live longer and healthier lives. Not only that, but despite all the food they can buy with their loot, the rich tend to be thinner than the poor, another sign of good health.

In the Whitehall Survey, conducted at University College London, 17,000 civil servants have been followed. All are well educated and have the same access to health care. Yet the clerks at the bottom of the income scale have triple the mortality rate as those at the top. A U.S. study involving 300,000 men, called the Multiple Risk Intervention Factor, discovered every income class was healthier than the classes below them and sicker than the ones above.

Third, a 1998 survey conducted by the magazine *Town & Country* shows people with more money tend to have better marriages, are happier with the friends they make, and find their jobs more interesting.

I know we've been told different. But it ain't true. Sorry.

These studies come as no surprise to me. Over the years I've said, quite frankly, I believe money can buy happiness. My comment is usually greeted with raised eyebrows and insinuations there's something morally wrong with me. In ensuing discussions I've tried to explain that it's not like you can go to the market and buy two pounds of happiness. ("I'll take it in red and sign me up for the 10-year warranty, please.") I've maintained money can make you happier because it represents freedom and time. With money you can buy convenience and other people's time. By convenience I mean that more of the necessities in life are readily available to you. When I say you can buy time, I mean time in two senses: First, because your health improves and you are likely to buy a few more good years of life. Second, every time I write a check to the guy who mows my lawn, I am literally buying his time to do something I don't want or don't have time to do myself. Of course, because I'm not rich, I have to put in my own time to earn the money I use to buy his. But if I were rich, I'd no longer have to use the limited

amount of time I have on this planet to buy someone else's time. I'd just write a check.

How much money do you need to be rich? J. Paul Getty, one of the world's richest men when he was alive, said, "If you can actually count your money then you are not really a rich man." But a fellow I once worked with was more realistic. He didn't need billions of dollars. He just needed enough so he didn't have to work (though he was sure he still would), so he didn't have to worry about bills, and so that every couple of years he could go down to the local car lot, pay cash for a new vehicle, and not have to think about the money he spent.

How much do the experts say is enough? In a study conducted by Andrew Oswald and Jonathan Gardner at the University of Warwick, in Coventry, England, they discovered about 1.5 million tax-free American dollars moved most people into the top 2% on the happiness scale. Their study also revealed that, at the low end of the scale, each \$75,000 moves one between $1/10$ and $3/10$ standard deviations (which is a measure of how statistical data is spread out) up the "happiness" scale. To a mathematician (my degree is in mathematics) *this is significant*.

This is not to say only the rich are happy or you can only be happy if you're rich. Lots of people are happy. But, if you have lots of dough, it's likely that you're going to be even happier.

Are there people who are both rich and unhappy? Of course. For those who thrive on *schadenfreude*, the Warwick study is replete with examples of people who discovered they were miserable just laying about. One, Dawn Wilby, won £4 million (almost \$6 million) and was unhappy until she took a job for £12,000 (about \$20,000) a year. She hasn't caught on that with money, as with Viagra, you can't just lay there and expect results. You've got to do something to get the benefit.

Other studies I read that purportedly demonstrate the opposite—that money leads to misery—were about well-paid executives who got huge bonuses but were still unhappy. I discounted these because they concentrated only on office jealousies and dissatisfaction that arose because the subjects wish they'd gotten more. There's no mention of their home lives, whether they feel relief from the pressure of bills, etc. It is as though their jobs were the only things that mattered. These studies are so narrow they are tantamount to proving marriage makes a man's life worse by focusing only on his relationship with his mother-in-law.

On the other hand, years ago I read an article in the Ventura, California, *Star* about lottery winners and one fellow who said the money made him unhappy because people kept asking him for loans. That's not unhappiness; that's annoyance. It's like complaining about mosquitoes when you take a trip to Hawaii. You ain't getting my sympathy, pal.

But the last word on this comes from my friend, Cathy. When she heard I was writing this column, she said, "Anyone who thinks money can't buy happiness just doesn't know where to shop." Δ

— John Silveira

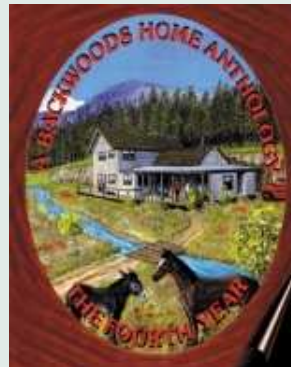
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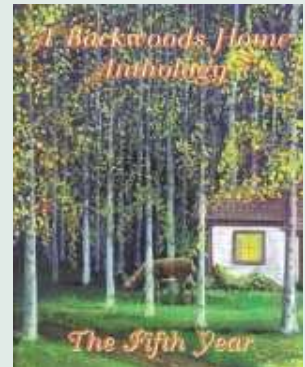
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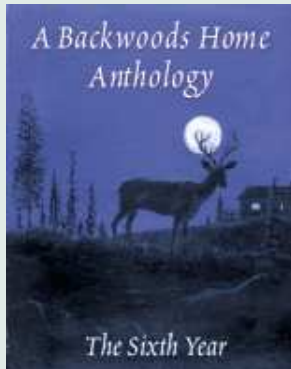
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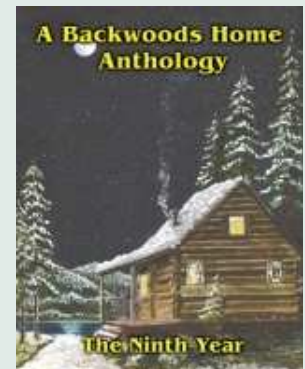
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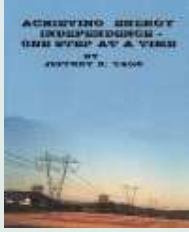
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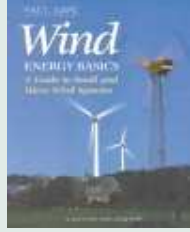
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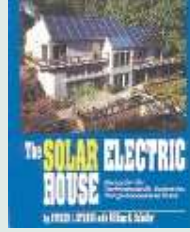
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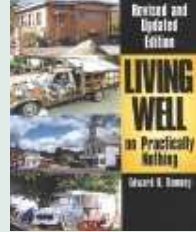
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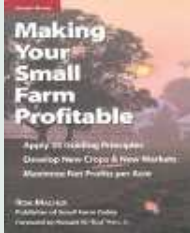
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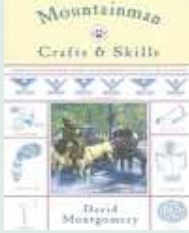
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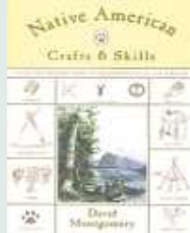
MOUNTAINMAN CRAFTS & SKILLS



Make and use hunting tools and utensils, wild game traps, mountainman clothing, tents, and much more. Wilderness survival skills are also covered, with instruction geared at both novice and expert. Learn to trap wild game, tan hides, shoot with black powder, make a fire, and cook a hearty meal with only the barest of essentials.

240 pgs; 6x9" ppbk. \$17.95 SS29

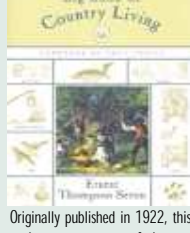
NATIVE AMERICAN CRAFTS & SKILLS



This book is an excellent introduction to the study of Native American crafts and outdoor skills, including tanning leather to create authentic clothing and moccasins, the basics of the "kitchen," including utensils, cookery, and foods, and games, musical instruments, and jewelry.

216 pgs; 6x9" ppbk. \$17.95 SS30

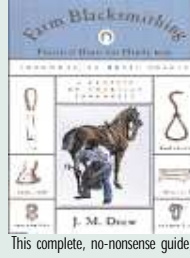
BIG BOOK OF COUNTRY LIVING



Originally published in 1922, this work represents years of observation and experience in the wilderness. Distinguish edible plants from poisonous ones, start a fire using a jackknife, build a birdhouse out of a wooden box, tie a variety of essential knots, identify trees, wildflowers, animals, birds, constellations, and more.

590 pgs; 7x10" ppbk. \$22.95 SS31

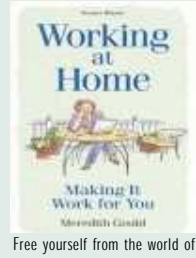
FARM BLACKSMITHING



This complete, no-nonsense guide, published originally at the turn of the century, dispenses invaluable tutelage on both the history and craft of this grand tradition. J. M. Drew begins with the basics, including how to set up a blacksmith shop, identify and use various essential tools, and select materials with which to work.

100 pgs; 4 1/2 x 7 1/4" ppbk. \$15.95 SS32

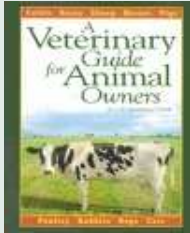
WORKING AT HOME



Free yourself from the world of rush-hour traffic and office politics with easy-to-digest ideas and techniques for establishing and running your own home office. With authority and wit, Gould covers it all—from setting up your workspace to setting up record-keeping systems. Nearly 50 million Americans work from their homes. Why not you?

171 pgs; 4 1/2 x 8" ppbk. \$12.95 SS39

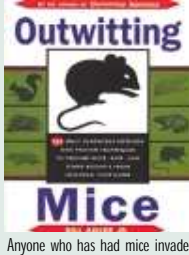
A VETERINARY GUIDE FOR ANIMAL OWNERS



Backwoods Home Magazine's very own Jackie Clay revised and updated this classic on veterinary care. Included are methods to diagnose and treat diseases and injuries in livestock and pets. This is the book to have when you have to treat your own animals or to check before you call the vet. Illustrated.

432 pgs; 8 1/2 x 5 7/8" hdbk. \$18.95 SS34

OUTWITTING MICE



Anyone who has had mice invade his or her home knows that nothing is as unnerving as hearing them scurrying behind walls in the middle of the night or finding droppings on the kitchen counter in the morning. But it's trying to get rid of them that can throw any sane person into utter madness.

160 pgs; 5 1/2 x 8 1/4" ppbk. \$17.95 SS35

SQUIRREL PROOFING YOUR HOME & GARDEN



The bestselling author of Deer Proofing Your Yard & Garden helps homeowners battle one of nature's most wily and persistent creatures—squirrels—with a storehouse of environmentally responsible techniques that really work.

153 pgs; 6x9" ppbk. \$15.95 SS36

NATURAL LIQUID SOAPS



Finally, a book on making liquid soaps at home. Using a simple double-boiler technique, you can create inexpensive moisturizing hand soaps, revitalizing shampoos, invigorating shower gels, soothing bubble baths, and much more. And all tailored to your skin type, to your hair's needs, or even to your mood.

134 pgs; 7x10" ppbk. \$21.95 SS37

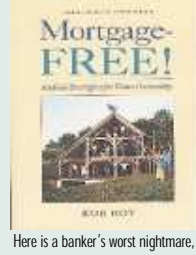
THE PAPERMAKER'S COMPANION



With clear instructions and step-by-step illustrations, expert Helen Hiebert covers every aspect of creating one-of-a-kind papers and using those papers in fun, creative, and beautiful ways. This essential handbook is sure to be one that paper crafters return to again and again.

219 pgs; 8x8" ppbk. \$21.95 SS38

MORTGAGE FREE!

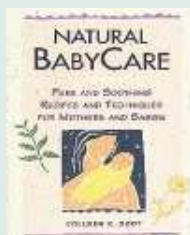


Here is a banker's worst nightmare, a book that tells you how to live without being enslaved to financial institutions. Rob Roy offers a series of escape routes from indentured servitude, underscored by true stories of intrepid homeowners who have put their principles into action.

353 pgs; 6x9" ppbk. \$27.95 SS40

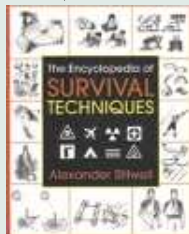
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NATURAL BABY CARE



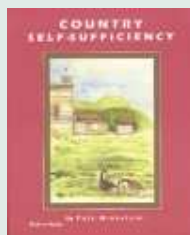
Get your baby and yourself off to a great start—naturally. Herbalist Doty offers experienced advice on the safest, gentlest products and practices for ensuring good health for your baby. Includes easy instructions on how to select or create safe creams, baths, and shampoos, that promote the health and well-being of mother and child. 156 pgs; 6x9" ppbk. \$15.95 HE1

ENCYCLOPEDIA OF SURVIVAL TECHNIQUES



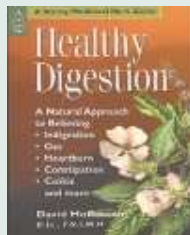
Included here is everything you need to know about staying alive in the wild. Organized by climate and terrain (desert, sea, arctic, mountain, and jungle), this book is packed with over 200 line drawings that provide step-by-step guidance to mastering survival situations. 192 pgs; 7½x9½" ppbk. \$22.95 SS41

COUNTRY SELF-SUFFICIENCY



Country Self-Sufficiency describes how to find and build a homestead, complete with a garden, greenhouse, crops, and animals for all of North America. Chapters include homeschooling, finding and selecting a country home and living off nature. 272 pgs; 8½x11" ppbk. \$22.95 SS42

HEALTHY DIGESTION



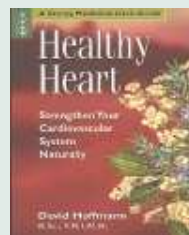
Healthy Digestion is your complete guide to tapping into the power of herbs to maintain a healthy digestive system—with a full directory of useful herbs, preparation instructions and dosage information, and a chapter on simple ways to make your own teas, tinctures, powders, and capsules. 122 pgs; 5½x8½" ppbk. \$15.95 HE20

DANDELION MEDICINE



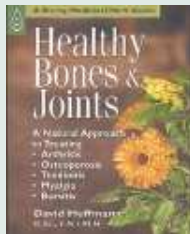
It's one of the most nutrient-packed foods, and widely used herbal medicines. Now all its latest uses, preparations, and recipes are brought together for the first time. Whether you suffer from arthritis, high cholesterol, or depression—or you want to prevent these and other problems—you'll love dandelions. 119 pgs; 5½x8½" ppbk. \$15.95 HE2

HEALTHY HEART



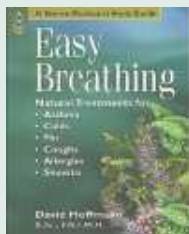
The whole-body approach of noted herbal clinician David Hoffman offers a practical, natural way to prevent heart disease and ease the symptoms of hypertension, congestive heart failure, angina, varicose veins, arteriosclerosis, and other cardiovascular conditions. Discover how herbs can help you live a longer, healthier, more vital life. 122 pgs; 5½x8½" ppbk. \$15.95 HE17

HEALTHY BONES & JOINTS



This book includes clear explanations of how herbs can be used to help prevent bone and joint diseases, a thorough overview of musculoskeletal conditions, with a wide variety of preventive strategies, and a directory of herbs that are most helpful for the musculoskeletal system—along with preparation instructions and dosage guidelines. 122 pgs; 5½x8½" ppbk. \$15.95 HE18

EASY BREATHING



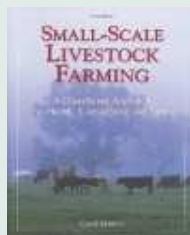
This easy-reference guide offers an overview of common respiratory ailments, with preventive strategies and healing herbal formulas suggested for each condition. The author uses a holistic approach to respiratory care, with a combination of herbal medicines and lifestyle changes. 122 pgs; 5½x8½" ppbk. \$15.95 HE19

SUCCESSFUL SMALL-SCALE FARMING



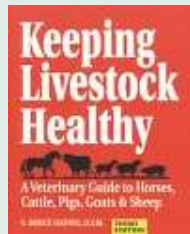
This book introduces anyone owning (or planning to own) a small farm to the harsh realities and the real potential involved in making a full- or part-time living on the land. Karl Schwenke's clear-eyed approach to the best farming methods covers a wide range of proven techniques and practical advice. 134 pgs; 8½x11" ppbk. \$17.95 FP27

SMALL-SCALE LIVESTOCK FARMING



Yes, you can have a prosperous farm and achieve the lifestyle of your dreams—and farming expert Carol Ekarius will show you how. This natural, organic approach to livestock management produces healthier animals, reduces feed and health-care costs, and maximizes your profit. 217 pgs; 8½x11" ppbk. \$21.95 FP12

KEEPING LIVESTOCK HEALTHY



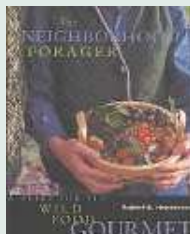
Since its first publication in 1978, this handbook has been read by more than 100,000 livestock owners and veterinary students. In this newly updated edition, veterinarian Haynes addresses recent developments in vaccines, artificial insemination, ultrasonography, disease testing, drug treatments, and diseases such as Potomac fever, blue tongue, and BSE. 344 pgs; 6x9" ppbk. \$22.95 FP19

HOME SAUSAGE MAKING



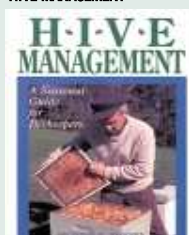
This book is a combination how-to manual and cookbook. This edition includes new poultry and fish chapters. All recipes have been re-written to reflect lower fat and salt content. Learn dozens of ways of combining fresh, healthy homemade sausage with other ingredients to prepare many dinner treats. 168 pgs; 8½x11" ppbk. \$17.95 FP23

THE NEIGHBORHOOD FORAGER



Mention "foraging" and many people think of tramping through soggy swamps of trackless wilderness, battling mosquitoes and briars to reap a tiny harvest of nuts or berries. Yet, foraging for wild edibles doesn't have to be difficult, or require expeditionary gear to have surprising and tasty results. 280 pgs; 8x10" ppbk. \$27.95 CR31

HIVE MANAGEMENT



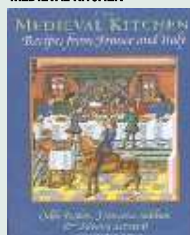
Long-term success in beekeeping can only be achieved by understanding the lives, behaviour, and motivations of honey bees—the factors which govern the life of each colony. For the practicing beekeeper who needs more information, or for the serious novice who wants to start out right, this book offers sensible advice to help keep your honey bees thriving. 152 pgs; 6x9" ppbk. \$19.95 FP28

SMALL-SCALE CRAYFISH FARMING



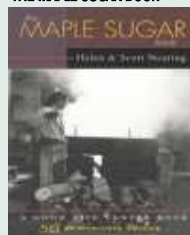
Includes a short explanation of crayfish habits, their reproduction, and their life cycle. Explains constructing and maintaining a crayfish pond, building traps to harvest your "crop," processing and selling it, and even some recipes for preparing them. 50 pgs; 5½x8½" ppbk. \$9.95 FP32

MEDIEVAL KITCHEN



This book is a delightful work in which historians Redon, Sabbat, and Serventi rescue glorious cuisine of the Middle Ages. Medieval gastronomy was superb—a wonderful melange of flavor, aroma, and color. The recipes are reconstructed from fourteenth- and fifteenth-century sources and carefully adapted for the modern kitchen. 285 pgs; 6½x9½" ppbk. \$21.00 CR37

THE MAPLE SUGAR BOOK



This book is filled with a history of sugaring from Native American to modern times, with practical tips on how to tap trees, process sap, and market syrup. Fifty years after its original publication in 1950, The Maple Sugar Book is as relevant as ever to the homestead or small-scale commercial practitioner. 306 pgs; 5½x8" ppbk. \$19.95 FP42

FOREST GARDENING



Based on the model of a healthy natural woodland, a forest garden incorporates a wide variety of useful plants, including fruit and nut trees, perennial herbs, and vegetables. The principles of "backyard permaculture" can be applied in every temperate zone of North America, helping to transform even a small cottage garden into a diverse and hospitable habitat. 234 pgs; 6x9" ppbk. \$20.95 FP43

Backwoods Home Magazine Bookstore

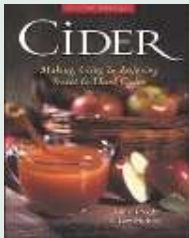
THE BOOK OF GREEN TEA



Enhance your life with the great versatility and healthful benefits of this tea of the ancients. From bath salts to ice cream, this traditional Asian beverage can be used in dozens of ways to relax the mind, strengthen the body, and soothe the soul.

156 pgs; 7½x7½" ppbk. \$19.95 CR20

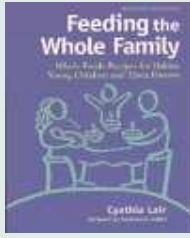
CIDER



Clear language, illustrations, and instructions lead you through making fresh and delicious sweet and hard ciders—including blended and sparkling ciders, building your own working apple press, enhancing your cooking with cider as an ingredient, choosing the right apple cultivar for the flavor you want, and planning and planting your very own home orchard.

219 pgs; 6x9" ppbk. \$17.95 CR21

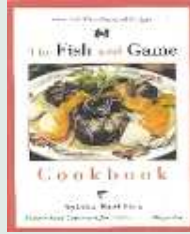
FEEDING THE WHOLE FAMILY



Cynthia Lair is a certified health and nutrition counselor and member of the nutrition faculty at Bastyr University. This is an excellent book for families interested in whole, organic foods. Chapters include starting your baby on whole foods to including vital vegetables in your diet to making wholesome desserts and natural drinks.

282 pgs; 7x10" ppbk. \$21.00 CR36

THE FISH AND GAME COOKBOOK



A unique cookbook by a former food columnist. Included here are dozens of outstanding recipes, many of which have been neglected by standard cookbooks—venison moussaka, shark tetrazzini, trout with cucumber sauce, broiled goose in mustard sauce, and curried fried squirrel, to name just a few.

272 pgs; 6x9" ppbk. \$17.95 CR33

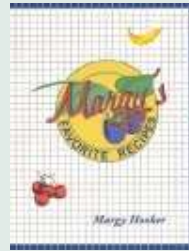
THE ART OF AMERICAN INDIAN COOKING



Over 150 delicious, and authentic dishes from five North American regions. From delicacies such as Zuni green chili stew and roast pheasant stuffed with grapes and nuts to simple favorites including baked acorn squash with honey and Chippewa wild rice, this book is a sensual journey of color, scent, and flavor across North America.

215 pgs; 6x9" ppbk. \$17.95 CR35

MARGY'S FAVORITE RECIPES



Margy Hooker, sister of BHM writer Joe Hooker, has owned two popular restaurant in Fort Wayne, IN. This book contains some of the recipes that made her restaurants so good. They are heart-healthy and most include calorie, fat, protein, carbohydrate, cholesterol, and sodium content. Easy to read and easy to follow recipes.

312 pgs; 6x9" ppbk. \$27.95 CR41

THE VEGETABLE GARDENER'S BIBLE



Wide rows, organic methods, raised beds, and deep soil are the author's method of gardening. Smith says that if he can grow vegetables like these in the tough conditions of northern Vermont, gardeners everywhere, no matter where they live can grow great gardens, too.

309 pgs; 8½x10¾" ppbk. \$27.95 GL67

SQUARE FOOT GARDENING



This new gardening method has received world-wide recognition for its simplicity and uniqueness and has been written up in every major newspaper and gardening magazine. A new way to garden with 80 percent less space and work.

347 pgs; 6x9" ppbk. \$19.95 GL70

THE HOMEBREWER'S GARDEN



If you have a backyard, or even a sun-facing porch, you can greatly enhance the flavor, aroma, and taste of your homebrew by growing your own hops, brewing herbs, and malt grains. Easy instructions will help you put the "home" into your homebrew. When you grow your own organic ingredients, you can be sure they are the freshest and purest available.

187 pgs; 6x9" ppbk. \$17.95 GL6

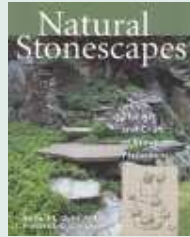
PRUNING MADE EASY



Pruning is one of the best things you can do for your plants. Learn when, and how plants should be pruned, artistic pruning techniques used to make topiary, and methods of using and caring for pruning tools and equipment. More than 300 illustrations show proper techniques for pruning of trees, shrubs, bushes, hedges, vines, and flowers.

218 pgs; 8½x11" ppbk. \$22.95 GL8

NATURAL STONESCAPES



Design stone arrangements that mimic nature, find stones appropriate for your design and location, and use a variety of techniques to help you safely transport, set, and maneuver stones into place. You'll also find more than 20 designs for stone groupings appropriate for all types of landscapes, from flat lawns to hillsides and waterscapes.

168 pgs; 8½ x 11" ppbk. \$27.95 GL12

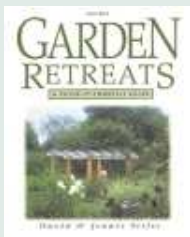
YEAR-ROUND GARDENING PROJECTS



Learn techniques used by North America's best gardeners with projects from *Horticulture* magazine. Arranged by season, each two-page spread is dedicated to a gardening activity. Clear instructions make each technique easy to understand and satisfying to implement in your yard, garden, or home.

212 pgs; 8½x10¾" ppbk. \$17.95 GL17

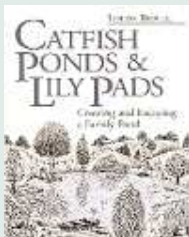
GARDEN RETREATS



Garden retreats are perfect for entertaining, meditating, or just enjoying the sights and sounds of your own backyard. With step-by-step, illustrated instructions from experienced designers and builders you can build your own garden project quickly and successfully. This complete workbook contains 22 unique, easy-to-build garden structures.

155 pgs; ppbk. \$22.95 GL24

CATFISH PONDS & LILY PADS



Whether it's fishing by moonlight, planting iris and weeping willows, catching crawfish, or supervising an unruly crowd of ducks, Louise Riotte knows how to get the most fun out of a family pond. She shares her experiences in this entertaining book, presented with her trademark mix of facts, anecdotes, lore, and lively humor.

186 pgs; 6x9" ppbk. \$15.95 GL26

LANDSCAPING MAKES CENTS



Make sure that the money you spend on your home landscaping adds long-term value to your property. Professional landscaping contractors lead you step by step through the process of planning and building a landscape that fits your needs and preferences and will maximize the return on your investment.

169 pgs; 8½x11" ppbk. \$19.95 GL27

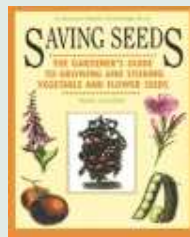
THE PRUNING BOOK



Whether you're new to gardening or an experienced pro, you'll find Lee Reich's advice and practical techniques to be invaluable. Packed with informative tips and illustrated with clear line drawings and color photographs, *The Pruning Book* shows every gardener how to prune with great results.

234 pgs; 8x10" ppbk. \$22.95 GL61

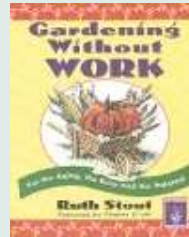
SAVING SEEDS



Saving seeds is a time-honored tradition—one that more and more gardeners are rediscovering. This book will tell you all you need to know about how to raise, harvest, and store seeds for the easiest-to-grow and most popular vegetables and ornamental plants. Each vegetable and flower is discussed in detail.

186 pgs; 6x9" ppbk. \$15.95 GL62

GARDENING WITHOUT WORK

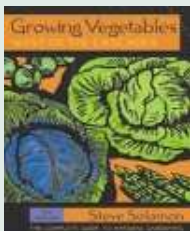


With this delightful book, you can garden with hardly any labor except planting and picking. The Stout System of mulch gardening will allow you to throw away your weeding tools, pesticides, and fertilizers, and will conserve and replenish the soil to make plants thrive.

214 pgs; 6x9" ppbk. \$17.95 GL63

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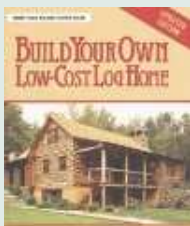
GROWING VEGETABLES WEST OF THE CASCADES



Grace your table year-round with fresh, nutritious vegetables straight from your garden. Includes advice on how to select, cultivate, and harvest plants suited to this region. Whether you grow a few tomato plants or aspire to self-sufficiency, you'll find this bible of Northwest gardening indispensable.

356 pgs; 7x10" ppbk. \$21.95 GL64

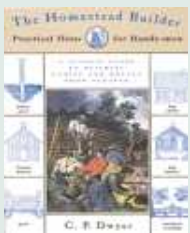
BUILD YOUR OWN LOW-COST LOG HOME



In this book you'll learn how to shape logs, make corner joints, erect walls, fit joists, add decks and porches, pick the best site, plan your foundation and driveway, when to get professional help, what tools you'll need, and ways to simplify hard jobs like raising logs and planning for chimneys.

196 pgs; 8½x11" ppbk. \$22.95 BU27

THE HOMESTEAD BUILDER



This practical classic is filled with handy advice on the best ways to plan and construct dwellings in any location, using wood, earth, and gravel. Includes no-nonsense instructions on erecting log cabins, slab houses, farm houses, and many others, as well as outdoor ovens, cellars, gates, furniture, and more.

145 pgs; 4½ x 7¼" ppbk. \$15.95 BU22

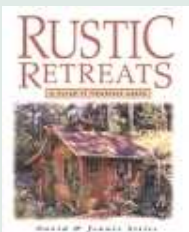
THE LAWN & GARDEN OWNER'S MANUAL



You know when it's time to mow the lawn, but do you know when and how to prune the tree that is starting to block the view? Move shrubs that are overcrowded? Live up an overgrown perennial bed? Fertilize and aerate your lawn? This book will show you how easy lawn and garden care can be.

188 pgs; 8½x11" ppbk. \$24.95 GL65

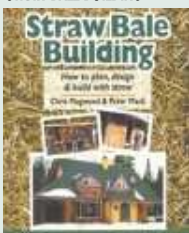
RUSTIC RETREATS



Campers, anglers, hunters, and nature lovers—the woodland hideaway you've dreamed of is here. From an elegant water gazebo to a traditional tipi, you'll find it in this book. Experienced designers and builders offer illustrated, step-by-step instructions for more than 20 low-cost, sturdy, beautiful outdoor structures.

153 pgs; 8½x11" ppbk. \$22.95 BU15

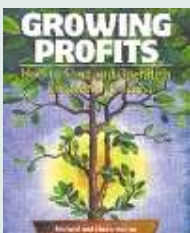
STRAW BALE BUILDING



Straw Bale Building guides the reader through every stage of the design and building process and is heavily illustrated with both architectural quality drawings and photographs of on-the-job action. With its extensive listing of further resources, it provides all you need to plan and then create the building of your dreams.

238 pgs; 8x9" ppbk. \$27.95 BU23

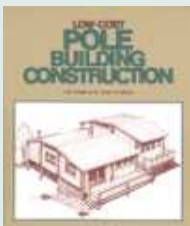
GROWING PROFITS



Turn your love of plants into an enjoyable and profitable business. Start a nursery in your backyard with virtually no capital investment. In an area of only 1,000 sq. ft. you can generate over \$5,000 worth of plants in a single growing season. A backyard nursery is a wonderful business for the person who wants to make a living from home.

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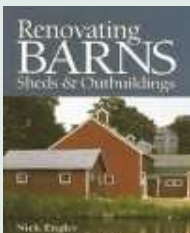
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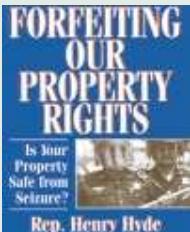
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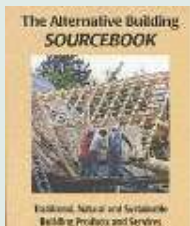
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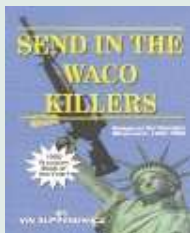
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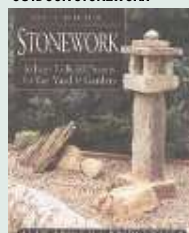
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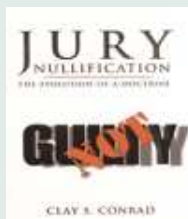


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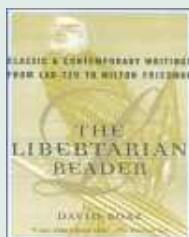
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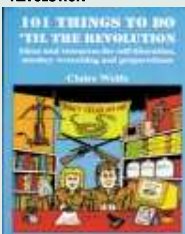
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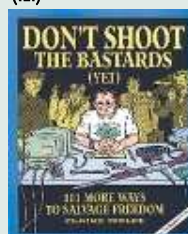
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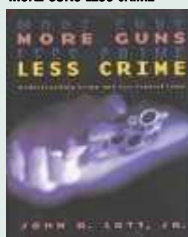
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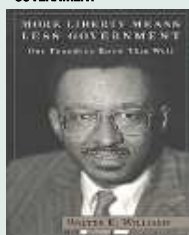
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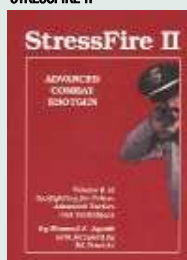
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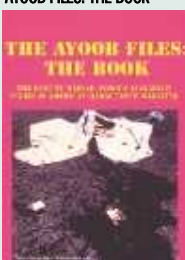
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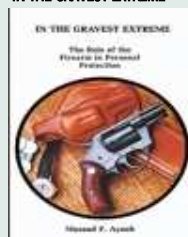
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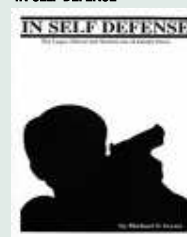
IN THE GRAVEST EXTREME



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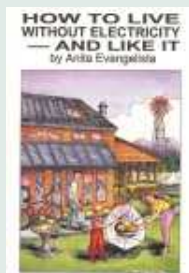
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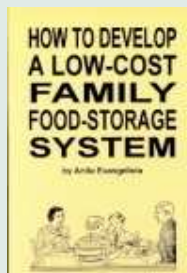
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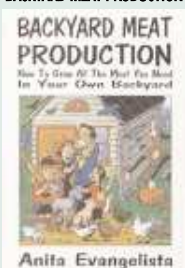
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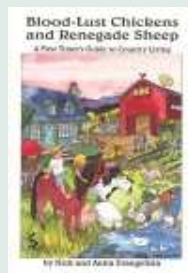
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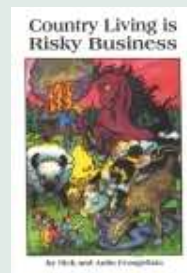
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